STATE OF NEW HAMPSHIRE
INTER-DEPARTMENT COMMUNICATION

DATE: September 1, 2021

FROM: Andrew O'Sullivan
Wetlands Program Manager

AT (OFFICE): Department of Transportation
Bureau of Environment

SUBJECT: Dredge & Fill Application
Charlestown 43565

TO: Karl Benedict, Public Works Permitting Officer
New Hampshire Wetlands Bureau
29 Hazen Drive, P.O. Box 95
Concord, NH 03302-0095

Forwarded herewith is the application package prepared by NH DOT Bureau of Environment for the subject Major impact project. This project is classified as Major in Env-Wt 407.03(a)- Jurisdictional Area Size Thresholds. The project is located along NH Route 12 in the Town of Charlestown, NH. The proposed project would include reconstruction of NH Route 12 and some portion of the failed roadway slope. Drainage improvements are proposed and a ditchline located between the roadway and the railroad would be improved, including underdrain. The application was prepared for the slope reconstruction including a reinforced soil slope and full excavation of the unsuitable roadway materials and replacement with new materials (in-kind slope replacement).

This project was reviewed at the Natural Resource Agency Coordination Meeting on August 18, 2021. A copy of the minutes has been included with this application package. A copy of this application and plans can be accessed on the Departments website via the following link: http://www.nh.gov/dot/org/projectdevelopment/environment/units/program-management/wetland-applications.htm.

NHDOT anticipates and request that this project be reviewed and permitted by the Army Corp of Engineers through the State Programmatic General Permit process. A copy of the application has been sent to the Army Corp of Engineers.

Mitigation is not required for the project.

A request for an expedited review is attached to this application.

The Charlestown Conservation Commission have waived their right to intervene for this project and coordination with the Connecticut River Joint Commissions on behalf of the Connecticut River Mt. Ascutney Local Advisory Subcommittee is taking place with a request to waive their right to intervene for the project.

The lead people to contact for this project are Jason M. Ayotte, Bureau of Highway Design ((603) 271-3921 or Jason.M.Ayotte@dot.nh.gov) or Andrew O'Sullivan, Wetlands Program Manager, Bureau of Environment (271-0556 or Andrew.O'Sullivan@dot.nh.gov).

A payment voucher has been processed for this application (Voucher # 655704) in the amount of $6,259.60

If and when this application meets with the approval of the Bureau, please send the permit directly to Andrew O'Sullivan, Wetlands Program Manager, Bureau of Environment.

AMO:amo
cc:

BOE Original
Town of Charlestown (4 copies via certified mail)
Connecticut River Mt. Ascutney Local Advisory Subcommittee (1 copies via certified mail)
David Trubey, NH Division of Historic Resources (Cultural Review Within)
Robert Scott, NHDES Commissioner (via electronic notification)
Carol Henderson, NH Fish & Game (via electronic notification)
Maria Tur, US Fish & Wildlife (via electronic notification)
Beth Alafat & Jeanie Brochi, US Environmental Protection Agency (via electronic notification)
Michael Hicks & Rick Kristoff, US Army Corp of Engineers (via electronic notification)
Kevin Nyhan, BOE (via electronic notification)

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THE STATE OF NEW HAMPSHIRE
DEPARTMENT OF TRANSPORTATION

Victoria F. Sheehan
Commissioner

William Cass, P.E.
Assistant Commissioner

Via E-mail to: Robert.R.Scott@des.nh.gov

CHARLESTOWN
43565
(NH Route 12 Emergency Slope Failure)

Commissioners Office
August 20, 2021

Robert Scott, Commissioner
New Hampshire Department of Environmental Services

Dear Commissioner Scott,

The New Hampshire Department of Transportation (NHDOT) hereby requests the expedited review of the Charlestown, 43565 emergency project, in accordance with ***Env-C 209.07 Requests to Expedite Review of an Application.*** As required by this rule, please find all of the relevant responses below to fulfill the necessary information that shall be provided as part of this expedited request.

Env-C 209.07(a)(1) – (*All information necessary to identify the application for which the request is being submitted):* The NHDOT is requesting expedited review for the Charlestown, 43565 project. A NH Department of Environmental Services (NHDES) File Number has not yet been assigned. The proposed work is located on NH Route 12 in the Town of Charlestown, NH. A location map has been included with the wetlands application package identifying the project limits.

Env-C 209.07(a)(2)(a) – *(The reason(s) for the request):*
The request for expedited review is necessary for two reasons:

1) To abate a substantial and imminent threat to public health or safety.
   -Despite NH Route 12 being closed, vehicles continue to try and bypass the road closure to avoid the 20-mile detour. The more immediate the work can begin the sooner this threat will be abated.
2) Expedited review is necessary to facilitate an important public interest and fundamental public responsibility, including but not limited to those relating to public education and public health, where project completion is time-sensitive.
   -The Department is trying to complete the work as soon as possible in an effort to restore safe passage for school buses and emergency response vehicles. Our goal is to complete the work as soon after re-opening of school this fall as possible to prevent having to send the school busses through Vermont on the detour during the winter.

Env-C 209.07(a)(2)(b) – *(The status of any other federal, state, or local approvals also required for the project and, if such approvals have already been issued, the issuing body, approval number, and date of issuance):* There are currently no other federal, state, or local approvals required. The Army Corps of Engineers

has confirmed that the work, as proposed, is in accordance with the Programmatic General Permit and we anticipate they will issue the approval in tandem with the NHDES wetlands approval. This project will require FHWA oversite and compliance with the National Environmental Policy Act of 1969 in the form of a Programmatic Categorical Exclusion. This project will likely seek FHWA Emergency Relief reimbursement in the future. There are no other FHWA or Federal Emergency Management Agency (FEMA) approvals required.

Env-C 209.07(a)(2)(c) – ***(A proposed deadline for the department to issue a decision and the reason(s) for the deadline selected):*** The NHDOT would like to request that NHDES render its final permitting decision within 15 calendar days 5 of which are allocated for you to render your initial decision on the acceptance of this request to expedite. The NHDOT is confident that with this timeline we will be able to re-open the roadway to school buses and emergency responder without project delays. Having the permit within this timeframe will allow most of the construction to occur within timelines established by our Standard Specifications, meet our quality of work standards, and prevent delays that could result in the need to detour traffic and keep the road closed all winter.

Env-C 209.07(a)(3)(a)(b)(c)(d) – The NHDOT hereby certifies that the application is complete and contains the current plans for the project, and that the plans are in accordance with the applicable rules. In addition, all information submitted with the application is true and not misleading. The NHDOT understands that the submittal of false or misleading information constitutes grounds to suspend or revoke any permit and that NHDOT could be subject to penalties. The NHDOT lastly acknowledges that we will respond to NHDES requests for more information or comments, or both, within 10 calendar days after the date of the request.

Enclosed please find a complete Standard Dredge and Fill Application along with a set of the final Wetland Impact/Erosion Control Plans.

Sincerely,

Victoria Sheehan
Commissioner

cc: Kevin Nyhan, BOE Administrator
Peter Stamnas, Director, Division of Project Development
David Rodrigue, Director, Division of Operations
Jason Ayotte, Project Manager, Highway Design
Mary Ann Tilton, NHDES Wetlands Bureau
Philip Trowbridge, NHDES Land and Resource Management
Karl Benedict, NHDES Wetlands Bureau
Andy O'Sullivan, NHDOT Wetlands Program Manager
Matt Urban, Chief, Operation Management Section

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STANDARD DREDGE AND FILL WETLANDS PERMIT APPLICATION

Water Division/Land Resources Management
Wetlands Bureau

Check the Status of your Application

RSA/Rule: RSA 482-A/Env-Wt 100-900

APPLICANT'S NAME: **New Hampshire Department of Transportation** **TOWN NAME:** Charlestown

Administrative Use Only	Administrative Use Only	Administrative Use Only	File No.:
			Check No.:
			Amount:
			Initials:

A person may request a waiver of the requirements in Rules Env-Wt 100-900 to accommodate situations where strict adherence to the requirements would not be in the best interest of the public or the environment but is still in compliance with RSA 482-A. A person may also request a waiver of the standards for existing dwellings over water pursuant to RSA 482-A:26, III(b). For more information, please consult the Waiver Request Form.

SECTION 1 - REQUIRED PLANNING FOR ALL PROJECTS (Env-Wt 306.05; RSA 482-A:3, I(d)(2))

Please use the Wetland Permit Planning Tool (WPPT), the Natural Heritage Bureau (NHB) DataCheck Tool, the Aquatic Restoration Mapper, or other sources to assist in identifying key features such as: priority resource areas (PRAs), protected species or habitats, coastal areas, designated rivers, or designated prime wetlands.

Has the required planning been completed?	☒ Yes ☐ No
Does the property contain a PRA? If yes, provide the following information:	☒ Yes ☐ No
• Does the project qualify for an Impact Classification Adjustment (e.g. NH Fish and Game Department (NHF&G) and NHB agreement for a classification downgrade) or a Project-Type Exception (e.g. Maintenance or Statutory Permit-by-Notification (SPN) project)? See Env-Wt 407.02 and Env-Wt 407.04.	☐ Yes ☒ No
• Protected species or habitat? ○ If yes, species or habitat name(s): Bald eagle, Northern leopard frog ○ NHB Project ID #: NHB21-43565	☒ Yes ☐ No
• Bog?	☐ Yes ☒ No
• Floodplain wetland contiguous to a tier 3 or higher watercourse?	☒ Yes ☐ No
• Designated prime wetland or duly-established 100-foot buffer?	☐ Yes ☒ No
• Sand dune, tidal wetland, tidal water, or undeveloped tidal buffer zone?	☐ Yes ☒ No
Is the property within a Designated River corridor? If yes, provide the following information: • Name of Local River Management Advisory Committee (LAC): Mt. Ascutney Subcommittee • A copy of the application was sent to the LAC on Month: 8 Day: 31 Year: 2021	☒ Yes ☐ No

For dredging projects, is the subject property contaminated? • If yes, list contaminant:	☐ Yes ☒ No
Is there potential to impact impaired waters, class A waters, or outstanding resource waters?	☐ Yes ☒ No
For stream crossing projects, provide watershed size (see WPPT or Stream Stats): N/A	

SECTION 2 - PROJECT DESCRIPTION (Env-Wt 311.04(i))

Provide a **brief** description of the project and the purpose of the project, outlining the scope of work to be performed and whether impacts are temporary or permanent. DO NOT reply "See attached"; please use the space provided below.

The NH Department of Transportation proposes to reconstruct approximately 700 linear feet of NH Route 12 and the adjacent roadway slope in order to re-open the roadway. NH Route 12 was closed due to safety concerns in the beginning of August following damage from storm events at the end of July 2021. There is currently an approximately 20 mile detour in place through Vermont. The roadway is in an unstable condition with saturated soils. There is a concrete slab underneath the pavement and a variable amount of pavement that ranges from 2 to 6 inches thick. Differential settlement caused cracking in the roadway pavement and the concrete slab down the centerline. It seems that the concrete slab is holding the road together, though some voids in the concrete have been discovered. The roadway is currently supporting the railroad embankment. There is also a slope failure along the roadway slope.

The proposed project would include reconstruction of NH Route 12 and some portion of the failed roadway slope. Drainage improvements are proposed and a ditchline located between the roadway and the railroad would be improved, including underdrain. The application was prepared for the slope reconstruction including a reinforced soil slope and full excavation of the unsuitable roadway materials and replacement with new materials (in-kind slope replacement). There are forested and forested, scrub shrub wetlands at the toe of the roadway slope within the floodplain. The wetlands at the toe of slope are expected to be impacted in order to construct the slope repairs, with some permanent impacts proposed for drainage improvements (pipe replacements). An access road is proposed at the toe of slope to accomplish the slope reconstruction, impacts associated with the access road would be temporary. The worst case scenario has been accounted for due to the project's emergent timeline. Impacts have been minimized to the maximum extent practicable.

SECTION 3 - PROJECT LOCATION

Separate wetland permit applications must be submitted for each municipality within which wetland impacts occur.

ADDRESS: NH Route 12

TOWN/CITY: Charlestown

TAX MAP/BLOCK/LOT/UNIT: N/A

US GEOLOGICAL SURVEY (USGS) TOPO MAP WATERBODY NAME:
☒ N/A

(Optional) LATITUDE/LONGITUDE in decimal degrees (to five decimal places): 43.20627° North
-72.43094° West

SECTION 4 - APPLICANT (DESIRED PERMIT HOLDER) INFORMATION (Env-Wt 311.04(a))

If the applicant is a trust or a company, then complete with the trust or company information.

NAME: NH Department of Transportation		
MAILING ADDRESS: 7 Hazen Drive		
TOWN/CITY: Concord	STATE: NH	ZIP CODE: 03302
EMAIL ADDRESS: Jason.M.Ayotte@dot.nh.gov		
FAX:	PHONE: 603-271-2230	

ELECTRONIC COMMUNICATION: By initialing here: JMA, I hereby authorize NHDES to communicate all matters relative to this application electronically.

SECTION 5 - AUTHORIZED AGENT INFORMATION (Env-Wt 311.04(c))

☐ N/A

LAST NAME, FIRST NAME, M.I.:		
COMPANY NAME:		
MAILING ADDRESS:		
TOWN/CITY:	STATE:	ZIP CODE:
EMAIL ADDRESS:		
FAX:	PHONE:	

ELECTRONIC COMMUNICATION: By initialing here , I hereby authorize NHDES to communicate all matters relative to this application electronically.

SECTION 6 - PROPERTY OWNER INFORMATION (IF DIFFERENT THAN APPLICANT) (Env-Wt 311.04(b))

If the owner is a trust or a company, then complete with the trust or company information.

☒ Same as applicant

NAME:		
MAILING ADDRESS:		
TOWN/CITY:	STATE:	ZIP CODE:
EMAIL ADDRESS:		
FAX:	PHONE:	

ELECTRONIC COMMUNICATION: By initialing here , I hereby authorize NHDES to communicate all matters relative to this application electronically.

SECTION 7 - RESOURCE-SPECIFIC CRITERIA ESTABLISHED IN Env-Wt 400, Env-Wt 500, Env-Wt 600, Env-Wt 700, OR Env-Wt 900 HAVE BEEN MET (Env-Wt 313.01(a)(3))

Describe how the resource-specific criteria have been met for each chapter listed above (please attach information about stream crossings, coastal resources, prime wetlands, or non-tidal wetlands and surface waters):

Env-Wt 400: Per RSA 310-A:79 - Exemption III jurisdictional areas were delineated and classified in accordance with the requirements of Env-Wt 400 on August 10, 201 by Matt Urban. On August 20, 2021 CWS Deidra Benjamin confirmed the USACE Northcentral and Northeast Region Version 2.0 Wetland Determination Data Forms.

Env-Wt 500: The project does not propose bank or shoreline stabilization (Env-Wt 514). The project meets the requirements for Env-Wt 527. All impacts proposed in the floodplain will be temporary and will be restored.

Env-Wt 600 & Env-Wt 700: N/A No coastal lands or tidal waters

Env-Wt 900: N/A The project does not include impacts to a stream crossing.

SECTION 8 - AVOIDANCE AND MINIMIZATION

Impacts within wetland jurisdiction must be avoided to the maximum extent practicable (Env-Wt 313.03(a)).* Any project with unavoidable jurisdictional impacts must then be minimized as described in the Wetlands Best Management Practice Techniques For Avoidance and Minimization and the Wetlands Permitting: Avoidance, Minimization and Mitigation Fact Sheet. For minor or major projects, a functional assessment of all wetlands on the project site is required (Env-Wt 311.03(b)(10)).*

Please refer to the application checklist to ensure you have attached all documents related to avoidance and minimization, as well as functional assessment (where applicable). Use the Avoidance and Minimization Checklist, the Avoidance and Minimization Narrative, or your own avoidance and minimization narrative.

**See Env-Wt 311.03(b)(6) and Env-Wt 311.03(b)(10) for shoreline structure exemptions.*

SECTION 9 - MITIGATION REQUIREMENT (Env-Wt 311.02)

If unavoidable jurisdictional impacts require mitigation, a mitigation pre-application meeting must occur at least 30 days but not more than 90 days prior to submitting this Standard Dredge and Fill Permit Application.

Mitigation Pre-Application Meeting Date: Month: Day: Year:

(☒ N/A - Mitigation is not required)

SECTION 10 - THE PROJECT MEETS COMPENSATORY MITIGATION REQUIREMENTS (Env-Wt 313.01(a)(1)c)

Confirm that you have submitted a compensatory mitigation proposal that meets the requirements of Env-Wt 800 for all permanent unavoidable impacts that will remain after avoidance and minimization techniques have been exercised to the maximum extent practicable: ☐ I confirm submittal.

(☒ N/A – Compensatory mitigation is not required)

SECTION 11 - IMPACT AREA (Env-Wt 311.04(g))

For each jurisdictional area that will be/has been impacted, provide square feet (SF) and, if applicable, linear feet (LF) of impact, and note whether the impact is after-the-fact (ATF; i.e., work was started or completed without a permit).

For intermittent and ephemeral streams, the linear footage of impact is measured along the thread of the channel. *Please note, installation of a stream crossing in an ephemeral stream may be undertaken without a permit per Rule Env-Wt 309.02(d), however other dredge or fill impacts should be included below.*

For perennial streams/rivers, the linear footage of impact is calculated by summing the lengths of disturbances to the channel and banks.

Permanent impacts are impacts that will remain after the project is complete (e.g., changes in grade or surface materials).

Temporary impacts are impacts not intended to remain (and will be restored to pre-construction conditions) after the project is completed.

JURISDICTIONAL AREA		PERMANENT			TEMPORARY		
		SF	LF	ATF	SF	LF	ATF
Wetlands	Forested Wetland	2,877		☐	12,772		☐
	Scrub-shrub Wetland			☐			☐
	Emergent Wetland			☐			☐
	Wet Meadow			☐			☐
	Vernal Pool			☐			☐
	Designated Prime Wetland			☐			☐
	Duly-established 100-foot Prime Wetland Buffer			☐			☐
Surface Water	Intermittent / Ephemeral Stream			☐			☐
	Perennial Stream or River			☐			☐
	Lake / Pond			☐			☐
	Docking - Lake / Pond			☐			☐
	Docking - River			☐			☐
Banks	Bank - Intermittent Stream			☐			☐
	Bank - Perennial Stream / River			☐			☐
	Bank / Shoreline - Lake / Pond			☐			☐
Tidal	Tidal Waters			☐			☐
	Tidal Marsh			☐			☐
	Sand Dune			☐			☐
	Undeveloped Tidal Buffer Zone (TBZ)			☐			☐
	Previously-developed TBZ			☐			☐
	Docking - Tidal Water			☐			☐
TOTAL							

SECTION 12 - APPLICATION FEE (RSA 482-A:3, I)

☐ **MINIMUM IMPACT FEE**: Flat fee of $400.

☐ **NON-ENFORCEMENT RELATED, PUBLICLY-FUNDED AND SUPERVISED RESTORATION PROJECTS, REGARDLESS OF IMPACT CLASSIFICATION:** Flat fee of $400 (refer to RSA 482-A:3, 1(c) for restrictions).

☒ **MINOR OR MAJOR IMPACT FEE:** Calculate using the table below:

Permanent and temporary (non-docking):	15,649 SF	× $0.40 =	$	6,259.60
Seasonal docking structure:	SF	× $2.00 =	$	
Permanent docking structure:	SF	× $4.00 =	$	
Projects proposing shoreline structures (including docks) add $400 =			$	

Total =	$ 6,259.60
The application fee for minor or major impact is the above calculated total or $400, whichever is greater =	$ 6,259.60

SECTION 13 - PROJECT CLASSIFICATION (Env-Wt 306.05)

Indicate the project classification.

☐ Minimum Impact Project	☐ Minor Project	☒ Major Project

SECTION 14 - REQUIRED CERTIFICATIONS (Env-Wt 311.11)

Initial each box below to certify:

Initials:	
JMA	To the best of the signer's knowledge and belief, all required notifications have been provided.
JMA	The information submitted on or with the application is true, complete, and not misleading to the best of the signer's knowledge and belief.
JMA	The signer understands that: • The submission of false, incomplete, or misleading information constitutes grounds for NHDES to: 1. Deny the application. 2. Revoke any approval that is granted based on the information. 3. If the signer is a certified wetland scientist, licensed surveyor, or professional engineer licensed to practice in New Hampshire, refer the matter to the joint board of licensure and certification established by RSA 310-A:1. • The signer is subject to the penalties specified in New Hampshire law for falsification in official matters, currently RSA 641. • The signature shall constitute authorization for the municipal conservation commission and the Department to inspect the site of the proposed project, except for minimum impact forestry SPN projects and minimum impact trail projects, where the signature shall authorize only the Department to inspect the site pursuant to RSA 482-A:6, II.
JMA	If the applicant is not the owner of the property, each property owner signature shall constitute certification by the signer that he or she is aware of the application being filed and does not object to the filing.

SECTION 15 - REQUIRED SIGNATURES (Env-Wt 311.04(d); Env-Wt 311.11)

SIGNATURE (OWNER): Jason Ayotte	PRINT NAME LEGIBLY: NHDOT/Jason Ayotte	DATE: 8/30/2021
SIGNATURE (APPLICANT, IF DIFFERENT FROM OWNER):	PRINT NAME LEGIBLY:	DATE:
SIGNATURE (AGENT, IF APPLICABLE):	PRINT NAME LEGIBLY:	DATE:

SECTION 16 - TOWN / CITY CLERK SIGNATURE (Env-Wt 311.04(f))

As required by RSA 482-A:3, I(a)(1), I hereby certify that the applicant has filed four application forms, four detailed plans, and four USGS location maps with the town/city indicated below.	
TOWN/CITY CLERK SIGNATURE: _____	PRINT NAME LEGIBLY: Exempt Per RSA 482-A;3, I(a)(1)
TOWN/CITY:	DATE:

DIRECTIONS FOR TOWN/CITY CLERK:
Per RSA 482-A:3, I(a)(1)

1. IMMEDIATELY sign the original application form and four copies in the signature space provided above.
2. Return the signed original application form and attachments to the applicant so that the applicant may submit the application form and attachments to NHDES by mail or hand delivery.
3. IMMEDIATELY distribute a copy of the application with one complete set of attachments to each of the following bodies: the municipal Conservation Commission, the local governing body (Board of Selectmen or Town/City Council), and the Planning Board.
4. Retain one copy of the application form and one complete set of attachments and make them reasonably accessible for public review.

DIRECTIONS FOR APPLICANT:
Submit the original permit application form bearing the signature of the Town/City Clerk, additional materials, and the application fee to NHDES by mail or hand delivery at the address at the bottom of this page. Make check or money order payable to “Treasurer – State of NH”.

Keep this checklist for your reference; do not submit with your application.

APPLICATION CHECKLIST

Unless specified, all items below are required. Failure to provide the required items will delay a decision on your project and may result in denial of your application. Please reference statute RSA 482-A, Fill and Dredge in Wetlands, and the Wetland Rules Env-Wt 100-900.

- ☒ The completed, dated, signed, and certified application (Env-Wt 311.03(b)(1)).
- ☒ Correct fee as determined in RSA 482-A:3, I(b) or (c), subject to any cap established by RSA 482-A:3, X (Env-Wt 311.03(b)(2)). Make check or money order payable to "Treasurer – State of NH".
- ☒ The Required Planning actions required by Env-Wt 311.01(a)-(c) and Env-Wt 311.03(b)(3).
- ☒ US Army Corps of Engineers (ACE) "Appendix B, New Hampshire General Permits (GPs), Required Information and Corps Secondary Impacts Checklist" and its required attachments (Env-Wt 307.02). This includes the US Fish and Wildlife Service IPAC review and Section 106 Historic/Archaeological Resource review.
- ☒ Project plans described in Env-Wt 311.05 (Env-Wt 311.03(b)(4)).
- ☒ Maps, or electronic shape files and meta data, and other attachments specified in Env-Wt 311.06 (Env-Wt 311.03(b)(5)).
- ☒ Explanation of the methods, timing, and manner as to how the project will meet standard permit conditions required in Env-Wt 307 (Env-Wt 311.03(b)(7)).
- ☐ If applicable, the information regarding proposed compensatory mitigation specified in Env-Wt 311.08 and Chapter Env-Wt 800 - Permittee Responsible Mitigation Project Worksheet, unless not required under Env-Wt 313.04 (Env-Wt 311.03(b)(8); Env-Wt 311.08; Env-Wt 313.04).
- ☒ Any additional information specific to the **type of resource** as specified in Env-Wt 311.09 (Env-Wt 311.03(b)(9); Env-Wt 311.04(j)).
- ☒ Project specific information required by Env-Wt 500, Env-Wt 600, and Env-Wt 900 (Env-Wt 311.03(b)(11)).
- ☒ A list containing the name, mailing address and tax map/lot number of each abutter to the subject property (Env-Wt 311.03(b)(12)).
- ☒ Copies of certified postal receipts or other proof of receipt of the notices that are required by RSA 482-A:3, I(d) (Env-Wt 311.03(b)(13)).
- ☒ Project design considerations required by Env-Wt 313 (Env-Wt 311.04(j)).
- ☒ Town tax map showing the subject property, the location of the project on the property, and the location of properties of abutters with each lot labeled with the name and mailing address of the abutter (Env-Wt 311.06(a)).
- ☒ Dated and labeled color photographs that:
  - (1) Clearly depict:
    - a. All jurisdictional areas, including but not limited to portions of wetland, shoreline, or surface water where impacts have or are proposed to occur.
    - b. All existing shoreline structures.
  - (2) Are mounted or printed no more than 2 per sheet on 8.5 x 11 inch sheets (Env-Wt 311.06(b)).
- ☒ A copy of the appropriate US Geological Survey map or updated data based on LiDAR at a scale of one inch equals 2,000 feet showing the location of the subject property and proposed project (Env-Wt 311.06(c)).
- ☒ A narrative that describes the work sequence, including pre-construction through post-construction, and the relative timing and progression of all work (Env-Wt 311.06(d)).

- ☐ For all projects in the protected tidal zone, a copy of the recorded deed with book and page numbers for the property (Env-Wt 311.06(e)).
- ☒ If the applicant is not the owner in fee of the subject property, documentation of the applicant's legal interest in the subject property, provided that for utility projects in a utility corridor, such documentation may comprise a list that:
  - (1) Identifies the county registry of deeds and book and page numbers of all of the easements or other recorded instruments that provide the necessary legal interest; and
  - (2) Has been certified as complete and accurate by a knowledgeable representative of the applicant (Env-Wt 311.06(f)).
- ☒ The NHB memo containing the NHB identification number and results as well as any written follow-up communications such as additional memos or email communications with either NHB or NHF&G (Env-Wt 311.06(g)). See Wetlands Permitting: Protected Species and Habitat Fact Sheet.
- ☒ A statement of whether the applicant has received comments from the local conservation commission and, if so, how the applicant has addressed the comments (Env-Wt 311.06(h)).
- ☒ For projects in LAC jurisdiction, a statement of whether the applicant has received comments from the LAC and, if so, how the applicant has addressed the comments (Env-Wt 311.06(i)).
- ☒ If the applicant is also seeking to be covered by the state general permits, a statement of whether comments have been received from any federal agency and, if so, how the applicant has addressed the comments (Env-Wt 311.06(j)).
- ☒ Avoidance and Minimization Written Narrative or the Avoidance and Minimization Checklist, or your own avoidance and minimization narrative (Env-Wt 311.07).
- ☐ For after-the-fact applications: information required by Env-Wt 311.12.
- ☐ Coastal Resource Worksheet for coastal projects as required under Env-Wt 600.
- ☒ Prime Wetlands information required under Env-Wt 700. See WPPT for prime wetland mapping.

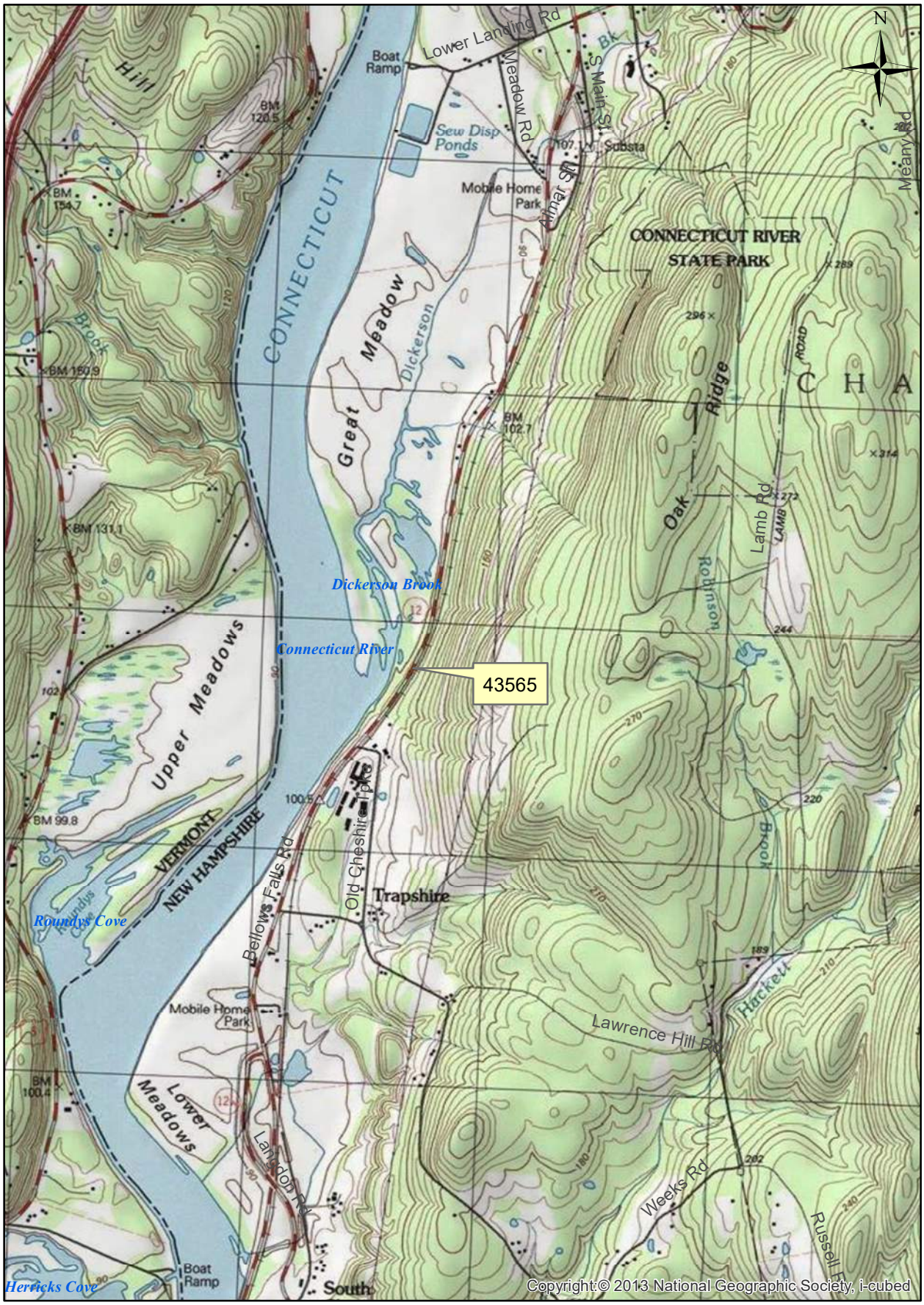
Required Attachments for Minor and Major Projects

- ☒ Attachment A: Minor and Major Projects (Env-Wt 313.03).
- ☒ Functional Assessment Worksheet or others means of documenting the results of actions required by Env-Wt 311.10 as part of an application preparation for a standard permit (Env-Wt 311.03(b)(3); Env-Wt 311.03(b)(10)). See Functional Assessments for Wetlands and Other Aquatic Resources Fact Sheet. For shoreline structures, see shoreline structures exemption in Env-Wt 311.03(b)(10)).

Optional Materials

- ☐ Stream Crossing Worksheet which summarizes the requirements for stream crossings under Env-Wt 900.
- ☐ Request for concurrent processing of related shoreland / wetlands permit applications (Env-Wt 313.05).

Charlestown 43565



0 0.25 0.5 1 Miles

1:24,000

STANDARD DREDGE AND FILL WETLANDS PERMIT APPLICATION ATTACHMENT A: MINOR AND MAJOR PROJECTS

Water Division/Land Resources Management

Wetlands Bureau

Check the Status of your Application

RSA/ Rule: RSA 482-A/ Env-Wt 311.10; Env-Wt 313.01(a)(1); Env-Wt 313.03

APPLICANT'S NAME: **Nh Department of Transportation** **TOWN NAME:** Charlestown

Attachment A is required for *all minor and major projects*, and must be completed *in addition* to the Avoidance and Minimization Narrative or Checklist that is required by Env-Wt 307.11.

For projects involving construction or modification of non-tidal shoreline structures over areas of surface waters having an absence of wetland vegetation, only Sections I.X through I.XV are required to be completed.

PART I: AVOIDANCE AND MINIMIZATION

In accordance with Env-Wt 313.03(a), the Department shall not approve any alteration of any jurisdictional area unless the applicant demonstrates that the potential impacts to jurisdictional areas have been avoided to the maximum extent practicable and that any unavoidable impacts have been minimized, as described in the Wetlands Best Management Practice Techniques For Avoidance and Minimization.

SECTION I.I - ALTERNATIVES (Env-Wt 313.03(b)(1))

Describe how there is no practicable alternative that would have a less adverse impact on the area and environments under the Department's jurisdiction.

THE PURPOSE OF THE PROJECT IS TO REOPEN NH ROUTE 12, WHICH WAS CLOSED IN THE BEGINNING OF AUGUST DUE TO SAFETY CONCERNS RESULTING FROM DAMAGE TO THE ROADWAY FROM THE STORM EVENTS AT THE END OF JULY. THERE IS CURRENTLY A ~20 MILE DETOUR IN PLACE REQUIRING TRAVEL THROUGH VERMONT. INVESTIGATION HAS REVELAED THAT THE ROADWAY IS IN AN UNSTABLE CONDITION WITH SATURATED SOILS. THERE IS A CONCRETE SLAB UNDERNEATH A VARIABLE AMOUNT OF PAVEMENT THAT RANGES FROM 2 INCHES TO 6 INCHES THICK. DIFFERENTIAL SETTLEMENT CAUSED CRACKING IN THE ROADWAY PAVEMENT AND THE CONCRETE SLAB DOWN THE CENTERLINE. THE CONCRETE SLAB IS HOLDING THE ROAD TOGETHER, THOUGH THE DRILLERS HAVE FOUND SOME VOIDS. THE ROADWAY IS CURRENTLY SUPPORTING THE RAILROAD EMBANKMENT. THERE HAS BEEN AND CONTINUES TO BE GROUNDWATER SEEPING THROUGH THE RAILROAD SLOPE. THERE ARE SLOPE FAILURES IN THE PROJECT AREA. A VARIETY OF RECONSTRUCTION OPTIONS HAVE BEEN EXPLORED. AT THIS TIME, THE SLOPE AND ROADWAY RECONSTRUCTION OPTION MAY BE THE ONLY SAFE WAY TO REOPEN NH ROUTE 12. PERMANENT IMPACTS AT THE TOE OF SLOPE ARE ANTICIPATED TO BE NECESSARY FOR THE RECONSTRUCTION OF THE SLOPE AND TEMPORARY IMPACTS ARE ANTICIPATED TO ALLOW ACCESS. THE NO ACTION ALTERNATIVE IS NOT FEASIBLE AS REOPENING THE ROADWAY IS IMPORTANT TO THE LOCAL ECONOMY, SCHOOLS, ETC. A SMALLER PATCH REPAIR OF THE CRACKING BETWEEN THE NORTHBOUND AND THE SOUTHBOUND LANE WOULD NOT BE SUFFICIENT TO STABILIZE THE ROADWAY AND MAKE IT SAFE TO REOPEN. AS THE PROJECT DESIGN PROGRESSES AND DURING CONSTRUCTION, IMPACTS WILL BE MINIMIZED AND AVOIDED WHERE PRACTICABLE.

SECTION I.II - MARSHES (Env-Wt 313.03(b)(2))

Describe how the project avoids and minimizes impacts to tidal marshes and non-tidal marshes where documented to provide sources of nutrients for finfish, crustacean, shellfish, and wildlife of significant value.

N/A no tidal or non-tidal marshes are within the project area.

SECTION I.III - HYDROLOGIC CONNECTION (Env-Wt 313.03(b)(3))

Describe how the project maintains hydrologic connections between adjacent wetland or stream systems.

The proposed wetland impacts are at the toe of the roadway slope to facilitate reconstruction of the slope and roadway. Most of the impacts are temporary and would be restored. The permanent impacts would be to the edge of the floodplain wetland and would not negatively impact the hydrologic connections between wetlands or intermittent streams nearby. Some drainage improvements will require permanent impacts within the floodplain wetland. The small area of permanent impacts within the floodplain wetland would not increase fill in the floodplain or change the base flood elevation.

SECTION I.IV - JURISDICTIONAL IMPACTS (Env-Wt 313.03(b)(4))

Describe how the project avoids and minimizes impacts to wetlands and other areas of jurisdiction under RSA 482-A, especially those in which there are exemplary natural communities, vernal pools, protected species and habitat, documented fisheries, and habitat and reproduction areas for species of concern, or any combination thereof.

The project will minimize impacts within jurisdictional areas to the maximum extent practicable while still achieving the purpose of the project to safely reopen NH Route 12. The impacts proposed will be to the edge of the wetlands at the toe of the roadway slope and most of the impacts will be restored. There are no known exemplary communities or vernal pools within the project area and no impacts to streams or rivers. The Natural Heritage Bureau (NHB21-2582) indicated the potential presense of two State Special Concern species in or near the project area, the Bald Eagle and the Northern Leopard Frog. NH Fish and Game has recommended retaining mature canopy trees with strong horizontal branching such as locust, oaks and pines wherever possible to preserve perching, winter roost and potential nesting trees for Bald Eagles; using wildlife-friendly erosion control and avoid the use of welded plastic or 'biodegradable plastic' netting or thread (e.g. polypropylene) in erosion control matting; and erecting silt fence in late summer to exclude Northern Leopard Frog from the work area. The US Fish and Wildlife Service (USFWS) Information for Planning and Consultatoin (IPaC) report identified the northern long-eared bat, the dwarf wedgemussel, and the northeastern bulrush. A 4(d) consistency letter was generated through IPaC and indicated that the project is consistent with activities analyzed by the 4(d) Rule Biological Opinion. The proposed project may affect NLEB, but incidental take of the NLEB from the project is not prohibited under the Endangered Species Act. Since the project does not include any impacts to the Connecticut River nor Dickerson Brook and appropriate best management practices will be used during construction to protect water quality, there will be no impacts to the dwarf wedgemussel as it is not anticipated to be present in the proejct area. USFWS consultation with David Simmons and Maria Tur determined that there is not likely any suitable habitat for the northeaster bulrush in the project area, therefore, the species is not anticipated to occur or be impacted by the project.

SECTION I.V - PUBLIC COMMERCE, NAVIGATION, OR RECREATION (Env-Wt 313.03(b)(5))

Describe how the project avoids and minimizes impacts that eliminate, depreciate or obstruct public commerce, navigation, or recreation.

Currently due to the unstable nature of NH Route 12, the roadway is closed with a significant detour of approximately 20 miles that includes travel into Vermont. School bus schedules, the local economy, and a farmer who typically moves his harvent through the project area are all being impacted by the road closure and detour. Reconstruction the NH Route 12 roadway and roadway slope would allow the roadway to safely be reopened, hopefully before winter. The road will remain closed until the damage has been addressed and the wetland permit is necessary to complete the proposed work. Neither the final project nor the reconstruction effort would be anticipated to impact recreation. The project will have a positive impact on public commerce and navigation through the area.

SECTION I.VI - FLOODPLAIN WETLANDS (Env-Wt 313.03(b)(6))

Describe how the project avoids and minimizes impacts to floodplain wetlands that provide flood storage.

The forested palustrine wetland at the toe of the roadway slope that would be impacted by the slope reconstruction is within the 100 year floodplain of Dickerson Brook and the Connecticut River. Permanent impacts to wetlands are proposed for reconstruction of the roadway drainage and a small amount of slope reconstruction. Temporary impacts are proposed for access to facilitate the reconstruction. There will be no permanent impacts to the floodplain storage (no net fill in the floodplain) and all temporary impacts within the floodplain will be restored. There will be no change to base flood elevation. Impacts to the floodplain will be minimized to the extent practicable.

SECTION I.VII - RIVERINE FORESTED WETLAND SYSTEMS AND SCRUB-SHRUB – MARSH COMPLEXES (Env-Wt 313.03(b)(7))

Describe how the project avoids and minimizes impacts to natural riverine forested wetland systems and scrub-shrub – marsh complexes of high ecological integrity.

The project impacts will be minimized to the maximum extent practicable. There are Palustrine Forested and Palustrine Forested/Palustrine Scrub Shrub wetlands at the toe of the roadway slope and impacts are proposed to the Palustrine forested wetland. Most impacts proposed are temporary to facilitate access for reconstruction of the slope and will be restored. A small amount of permanent impacts are proposed for drainage improvements. The wetlands were found to be almost completely overgrown with multiflora rose (an invasive plant), so would not be considered to have high ecological integrity.

SECTION I.VIII - DRINKING WATER SUPPLY AND GROUNDWATER AQUIFER LEVELS (Env-Wt 313.03(b)(8))

Describe how the project avoids and minimizes impacts to wetlands that would be detrimental to adjacent drinking water supply and groundwater aquifer levels.

The proposed project will not impact drinking water supply or groundwater aquifer levels. The project does not propose to increase impervious area, would not introduce any potential sources of groundwater contamination and is not anticipated to have substantial impacts to the functions or values of the wetlands in the project area.

SECTION I.IX - STREAM CHANNELS (Env-Wt 313.03(b)(9))

Describe how the project avoids and minimizes adverse impacts to stream channels and the ability of such channels to handle runoff of waters.

The proposed project would not impact stream channels and would not increase impervious area in the project area. Therefore, there would be no change to any streams ability to handle runoff waters.

SECTION I.X - SHORELINE STRUCTURES - CONSTRUCTION SURFACE AREA (Env-Wt 313.03(c)(1))

Describe how the project has been designed to use the minimum construction surface area over surface waters necessary to meet the stated purpose of the structures.

The project does not include impacts to or over surface waters.

SECTION I.XI - SHORELINE STRUCTURES - LEAST INTRUSIVE UPON PUBLIC TRUST (Env-Wt 313.03(c)(2))

Describe how the type of construction proposed is the least intrusive upon the public trust that will ensure safe docking on the frontage.

The project does not propose any shoreline structures and would not impacts any streams or rivers.

SECTION I.XII - SHORELINE STRUCTURES – ABUTTING PROPERTIES (Env-Wt 313.03(c)(3))

Describe how the structures have been designed to avoid and minimize impacts on ability of abutting owners to use and enjoy their properties.

The project does not propose any shoreline structures or impacts to streams or rivers.

SECTION I.XIII - SHORELINE STRUCTURES – COMMERCE AND RECREATION (Env-Wt 313.03(c)(4))

Describe how the structures have been designed to avoid and minimize impacts to the public's right to navigation, passage, and use of the resource for commerce and recreation.

The project does not propose any shoreline structures or impacts to streams or rivers

SECTION I.XIV - SHORELINE STRUCTURES – WATER QUALITY, AQUATIC VEGETATION, WILDLIFE AND FINFISH HABITAT (Env-Wt 313.03(c)(5))

Describe how the structures have been designed, located, and configured to avoid impacts to water quality, aquatic vegetation, and wildlife and finfish habitat.

The project does not propose any shoreline structures or impacts to streams or rivers

SECTION I.XV - SHORELINE STRUCTURES – VEGETATION REMOVAL, ACCESS POINTS, AND SHORELINE STABILITY (Env-Wt 313.03(c)(6))

Describe how the structures have been designed to avoid and minimize the removal of vegetation, the number of access points through wetlands or over the bank, and activities that may have an adverse effect on shoreline stability.

The project does not propose any shoreline structures or impacts to streams or rivers.

PART II: FUNCTIONAL ASSESSMENT
REQUIREMENTS Ensure that project meets the requirements of Env-Wt 311.10 regarding functional assessment (Env-Wt 311.04(j); Env-Wt 311.10).
FUNCTIONAL ASSESSMENT METHOD USED: USACE New England District Wetland Functions and Values: The Highway Methodology Workbook Supplement Wetland impacts proposed to the Palustrine forested wetland at the toe of the roadway, located within the 100-yr floodplain. This wetland serves the Dickerson Brook and Connecticut River system by absorbing extra water during flood conditions. It also catches runoff from the NH Route 12, offering an opportunity for nutrient and sediment attenuation. Rare wildlife recorded near the project area.
NAME OF CERTIFIED WETLAND SCIENTIST (FOR NON-TIDAL PROJECTS) OR QUALIFIED COASTAL PROFESSIONAL (FOR TIDAL PROJECTS) WHO COMPLETED THE ASSESSMENT: REBECCA MARTIN, NH DOT BUREAU OF ENVIRONMENT
DATE OF ASSESSMENT: FIELD: 8/10 WORKSHT: 8/25
Check this box to confirm that the application includes a NARRATIVE ON FUNCTIONAL ASSESSMENT: ☒
For minor or major projects requiring a standard permit without mitigation, the applicant shall submit a wetland evaluation report that includes completed checklists and information demonstrating the RELATIVE FUNCTIONS AND VALUES OF EACH WETLAND EVALUATED. Check this box to confirm that the application includes this information, if applicable: ☒ Note: The Wetlands Functional Assessment worksheet can be used to compile the information needed to meet functional assessment requirements.

NEW HAMPSHIRE DEPARTMENT OF ENVIRONMENTAL SERVICES WETLAND PERMIT APPLICATION

For

Charlestown 43565: Reconstruction and Reopening of NH Route 12 in Charlestown, NH

Supplemental Narrative

The following information is offered as a supplement to the information provided in the Wetland Permit Application and Plans.

Environmental Site Conditions and Functional Assessment Narrative

The project area includes the NH Route 12 roadway, the roadway slope, and the ditch area between the Sullivan Railroad (New England Central Railroad) and the NH Route 12 Roadway. The toe of the roadway slope is near the edge of the 100-year floodplain associated with Dickerson Brook and the Connecticut River. The project area is slightly north of the confluence of Dickerson Brook with the Connecticut River. Near the toe of the roadway slope and the edge of the 100-year floodplain, there are palustrine forested and palustrine forested, scrub-shrub wetlands. There is also a small palustrine emergent wetland in the ditch between the roadway and the railroad, which is exempt from permitting requirements per RSA-A:3 (IV)(b).

The wetland impacts proposed in the wetland permit application are to the Palustrine forested wetland at the toe of the roadway, which is located within the 100-year floodplain. This wetland serves the Dickerson Brook and Connecticut River system by absorbing extra water during flood conditions. It also catches runoff from the NH Route 12 roadway, offering an opportunity for nutrient and sediment attenuation before runoff travels to Dickerson Brook. In addition, bald eagles have been seen in the vicinity of the project area and the northern leopard frog is believed to utilize the habitat in the floodplain area. Floodplains like this one that are adjacent to streams are often used for wildlife movement.

The roadway slope has failed in some locations and is currently eroding. The road itself is in an unstable condition. The drainage structures through the project area are not believed to be functioning well. By repairing the roadway, including ditch improvements and underdrain, and repairing the slope, the project would create a more stable condition. Also, the project would prevent a more catastrophic future failure of the road and road bank that could result if the current unstable situation is not addressed.

Standard Permit Conditions Env-Wt 307

Env-Wt 307.02 (USACE Conditions)

Appendix B is attached. This wetland permit application will be submitted to USACE concurrently with submission to NHDES to request approval under the General Permit and the project will adhere to the conditions of the General Permit.

Env-Wt 307.03 (Protection of Water Quality)

The construction sequence includes details about water quality protection. The project will require a Storm Water Pollution Prevention Plan (coverage under the EPA CGP) with monitoring. Erosion and sediment control measures will be installed prior to the start of work and maintained throughout construction. When completed, the project would not have a negative impact on water quality. The project will include repairing the failed slope, which is currently eroding and maintaining the functionality of the existing ditch, as well as improving drainage to prevent future failures and erosion. Overall, the project would have a positive impact on the roadway and slope stability, which will be a benefit to water quality.

Env-Wt 307.04 (Protection of Fisheries)

No streams will be impacted by the project. Neither Dickerson Brook nor the Connecticut River will be impacted and water quality will be protected. The project is not anticipated to impact fisheries.

Env-Wt 307.05 (Protection Against Invasive Species)

The project area is overrun with multiflora rose. There is also Oriental bittersweet and Japanese barberry growing in the project area and a small amount of purple loosestrife. The contractor will prepare an Invasive Plant Management Plan to ensure the project conforms to Env-Wt 307.05 The Department's "Best Management Practices for the Control of Invasive and Noxious Plant Species" will be utilized.

Env-Wt 307.06 (Protection of Rare, Threatened or Endangered Species and Critical Habitat)

The US Fish and Wildlife Service (USFS) Information for Planning and Consultation (IPaC) tool was utilized to generate an official species list of federally listed species that might occur in or near the project area (Consultation Code: 05E1NE00-2021-SLI-4354). The list includes; the Northern long eared bat (NLEB), the Dwarf wedge mussel, and the Northeastern bulrush. The project is not near any known hibernacula or maternity roost trees, so it is consistent with the USFWS's Biological Opinion for the NLEB 4(d) rule and any take that might result from the project would not be prohibited. The verification letter for the project was submitted to USFWS through the IPAC tool. The project will not impact either the Connecticut River nor it's tributary, Dickerson Brook. Therefore, no Dwarf wedge mussels are anticipated to be present in the project area. Since the project will incorporate best management practices during construction to protect water quality in the project area, the project is not expected to have any effects on the Dwarf wedge mussel. Coordination was completed with David Simmons and Maria Tur to establish that there is not expected to be any suitable habitat for Northeastern bulrush in the project area. Therefore, the project is not expected to have any effect on the Northeastern bulrush. Copies of the USFWS correspondence and the Official Species List are included in the wetland permit application.

The NH Natural Heritage Bureau provided a list of species that have records near the proposed project area (NHB21-2582 attached), which includes Dwarf wedge mussel, Bald eagle, and Northern leopard frog. As stated above, the project will not have any impacts on the Connecticut River nor Dickerson Brook, so the project as proposed would have no effects on the Dwarf wedge mussel. Coordination with NH Fish and Game Department (NHF&G) was completed and recommendations received are being incorporated into the project design. Recommendations included: to retain mature canopy trees with strong horizontal branching such as locust, oaks and pines wherever possible to preserve perching, winter roost and potential nesting trees for Bald eagles; to use wildlife-friendly erosion control and avoid the use of welded plastic or 'biodegradable plastic' netting or thread (e.g. polypropylene) in erosion control matting; and to erect silt fence in late summer to exclude the Northern leopard frog from the work area. Copies of the NHF&G correspondence and the Natural Heritage Bureau report are included in the wetland permit application.

Env-Wt 307.07 (Shoreland Water Quality Protection Act)

The Connecticut River is subject to the Shoreland Water Quality Protection Act (SWQOA) and is a NH Designated River. Dickerson Brook is not subject to the SWQPA. There will be no impacts within 250 feet of the Connecticut River, therefore, no Shoreland Permit is required for the project.

Env-Wt 307.08 (Prime Wetlands)

There are no Prime Wetlands in or near the project area.

Env-Wt 307.09 (Shoreline Structures)

The project does not propose any shoreline structures.

Env-Wt 307.10 (Dredging Activity Conditions)

All dredging shall conform to the requirements listed in Env-Wt 307.10. The majority of the impacts proposed are to forested and forested, scrub-shrub wetlands. There will be no impacts to streams for the project. Best management practices will be used during construction to protect water quality.

Env-Wt 307.11 (Filling Activity Conditions)

All fill material in jurisdictional areas shall conform to the requirements listed in 307.11.

Env-Wt 307.12 (Restoring Temporary Impacts: Site Stabilization)

All temporary impact areas will be restored to the preconstruction condition per the requirements of Env-Wt 307.12. A planting plan was requested at the Natural Resource Agencies Coordination Meeting where the project was discussed in August 2021. The planting

plan describes how the area of temporary impacts will be revegetated (see below). A 75% successful establishment will be included in the project plans.

Env-Wt 307.13 (Property Line Setbacks)

The project does include impacts within jurisdictional areas outside of the NH Department of Transportation right of Way. The jurisdictional wetland impacts will be to the forested wetlands at the toe of the roadway slope, which are within the Great River Hydro right of way. A Right of Entry has been executed with Great River Hydro which allows the project to be constructed, including impacts to the Great River Hydro property (executed Right of Entry attached). The project also includes ditch improvements between the Sullivan Railroad (New England Central Railroad) and the NH Route 12 roadway. There is a small wetland in the man-made roadside ditch, which is exempt from permitting as it falls under the exemption of RSA-A:3(IV)(b), where the man-made ditch will be maintained to preserve its usefulness. These impacts are expected to be within the right of way of the NHDOT, however, should the NHDOT Bureau of Right of Way determine the right of way limits within the project area extend into that of the railroad, the Department's contractor will pursue a Right of Entry with the railroad prior to impacts within the railroad right of way.

Env-Wt 307.14 (Rock Removal)

The project does not propose to remove rocks from surface waters.

Env-Wt 307.15 (Use of Heavy Equipment in Wetlands)

The project includes temporary impacts for the construction of an access road near the toe of the roadway slope. These temporary impacts will be restored as described above. The conditions pertaining to use of heavy equipment in wetlands will be adhered to during construction of the project.

Env-Wt 307.16 (Adherence to Approved Plans Required)

The project construction will not exceed any of the impacts shown in the plans submitted with the wetland application. As described during the Natural Resource Agencies Coordination Meeting in August (minutes attached to the application), during construction the project shall minimize impacts to jurisdictional areas to the maximum extent practicable. The current deign and wetland permit application and plans assume the worst case scenario (greatest possible necessary impacts). During construction, if it is found that fewer impacts can accomplish the project goal of safely opening NH Route 12, the impacts shown in this application will be reduced.

Federal Agency Coordination

Coverage under the USACE General Permit will be required for this project. Pre-application coordination was completed at the Natural Resource Agencies Coordination Meeting in August.

During the meeting, Mike Hicks indicated that the wetland permit application package for the project should be submitted to USACE at the same time that it is submitted to NHDES to facilitate an expedited review. As described in Appendix B, the project will meet the conditions of the General Permit.

As described above, coordination has been completed with the US Fish and Wildlife Service (USFWS) regarding species on the project's IPaC Official Species List. A verification letter was submitted through IPaC for the impacts proposed to the Northern long eared bat in accordance with the 4(d) rule.

Local Agency Coordination

Due to the request to expedite the permit application review coordination with the Town Selectboard, Conservation Commission, the Connecticut River Mt. Ascutney LAC, and the Connecticut River Joint Commission were initiated as soon as possible during the project design. The project was presented at the August 25, 2021 Charlestown Selectboard meeting. The Town is understandably anxious to see the road reopened as soon as possible due to the long detour, impacts on emergency services, school buses, the local economy, etc. The Charlestown Conservation Commission Chair has expressed support for the NHDOT project and indicated that the Conservation Commission waives any right to intervene in the wetland permitting process (see attached). At this time, no response has been received from the Connecticut River Mt. Ascutney LAC after multiple attempts to contact the LAC members listed on the Connecticut River Mt. Ascutney LAC webpage. Pat Crocker of the Connecticut River Joint Commission has become involved to assist with facilitating a waiver and it appears that the Connecticut River Joint Commission is prepared and able to waive the Connecticut River Mt. Ascutney LAC review of the wetland permit application (see attached).

Planting Plan

The project will include a planting plan as described here for the temporary impacts to the wetlands within the 100-year floodplain. The planting plan is based on approximately 24,000 square feet of temporary impacts within the floodplain wetland, which will be restored as part of the project. Approximately 275 plants will be planted in the temporary impact area and the area will be seeded with wetland seed mix. A triangular spacing of the plants will be used for a more natural appearance on a 10-foot centerline with groups of 5 plants. A mix of trees and shrubs are included in the plan. Species were selected that are already present within the project area and that are considered to be hardy and expected to survive well. The selected species are; Speckled alder (12"-15"), Red osier dogwood (18"- 24"), and Red maple (3'-4'). There is a lot of multiflora rose in and around the project area. Two years of monitoring of the area is planned and the plants must have 75% successful establishment.

AVOIDANCE AND MINIMIZATION WRITTEN NARRATIVE

Water Division/Land Resources Management

Wetlands Bureau

Check the Status of your Application

RSA/ Rule: RSA 482-A/ Env-Wt 311.04(j); Env-Wt 311.07; Env-Wt 313.01(a)(1)b; Env-Wt 313.01(c)

APPLICANT'S NAME: **NH Department of Transportation** **TOWN NAME:** **Charlestown**

An applicant for a standard permit shall submit with the permit application a written narrative that explains how all impacts to functions and values of all jurisdictional areas have been avoided and minimized to the maximum extent practicable. This attachment can be used to guide the narrative (attach additional pages if needed). Alternatively, the applicant may attach a completed Avoidance and Minimization Checklist (NHDES-W-06-050) to the permit application.

SECTION 1 - WATER ACCESS STRUCTURES (Env-Wt 311.07(b)(1))

Is the primary purpose of the proposed project to construct a water access structure?

No, the purpose of the project is reconstruct the roadway and roadway slope to allow NH Route 12 to safely be reopened.

SECTION 2 - BUILDABLE LOT (Env-Wt 311.07(b)(1))

Does the proposed project require access through wetlands to reach a buildable lot or portion thereof?

This project requires temporary access at the toe of slope in wetlands to allow reconstruction of the roadway slope.

SECTION 3 - AVAILABLE PROPERTY (Env-Wt 311.07(b)(2))*

For any project that proposes permanent impacts of more than one acre, or that proposes permanent impacts to a PRA, or both, are any other properties reasonably available to the applicant, whether already owned or controlled by the applicant or not, that could be used to achieve the project's purpose without altering the functions and values of any jurisdictional area, in particular wetlands, streams, and PRAs?

**Except as provided in any project-specific criteria and except for NH Department of Transportation projects that qualify for a categorical exclusion under the National Environmental Policy Act.*

There are impacts proposed to wetlands within the floodplain and there are documented occurances of State special concern species in and near the project area (PRA). The project is a NHDOT project and will qualify for a NEPA categorical exclusion. The project proposes less than one acre of jurisdictional impacts. No other areas could be used to achieve the project's purpose of safely reopening the NH Route 12 roadway. During construction impacts will be minimized to the maximum extent practicable.

SECTION 4 - ALTERNATIVES (Env-Wt 311.07(b)(3))

Could alternative designs or techniques, such as different layouts, different construction sequencing, or alternative technologies be used to avoid impacts to jurisdictional areas or their functions and values as described in the Wetlands Best Management Practice Techniques For Avoidance and Minimization?

At this time the only alternative available that would allow NHDOT to safely reopen NH Route 12 is to reconstruct the roadway and the roadway slope (preferred alternative). Various alternatives for reconstructing the slope have been considered. However, permanent impacts to wetlands at the toe of slope for drainage improvements and a small amount of slope reconstruction within floodplain wetlands, as well as, temporary impacts to allow construction access are anticipated to be necessary. Due to the road closure, long detour, and pressure to have the road reopened before winter, there is limited flexability in the construction sequencing. The wetland impacts will be minimized to the maximum extent practicable during construction.

SECTION 5 - CONFORMANCE WITH Env-Wt 311.10(c) (Env-Wt 311.07(b)(4))**

How does the project conform to Env-Wt 311.10(c)?

***Except for projects solely limited to construction or modification of non-tidal shoreline structures only need to complete relevant sections of Attachment A.*

The project conforms to Env-Wt 311.10(c) as follows:

(1) Use the results of the functional assessment to select the location of the proposed project having the least impact to wetlands functions; The project's purpose of safely reopening NH Rout 12 leaves no flexibility about the location of the project to reconstruct the roadway or the roadway slope. Furthermore, the forested palustrine and forested palustrine/srub shrub palustrine wetlands at the toe of slope have very similar functions, so the focus is to minimize overall impacts as much as is practicable to the palustrine forested wetland.

(2) Design the proposed project to have the least impact to wetlands functions; The project location is based on the location of the roadway and slope failure. The purpose is to safely reopen NH Route 12. Impacts to wetlands and their functions will be minimized to the extent practicable. A worst case scenario approach is included in this application.

(3) Where impact to wetland functions is unavoidable, limit the project impacts to the least valuable functions on the site while avoiding and minimizing impacts to the highest and most valuable functions; The functions of the weltands on site are fairly uniform and the project location is not flexible, making avoiding higher or more valuable function wetlands impracticable.

(4) Include on-site minimization measures and construction management practices to protect aquatic resource functions; The project will minimize impacts to wetlands to the extent practicable. To exclude Northern Leopard Frogs from the project area, silt fence will be erected at the edge of the project impacts, isolating the work area. Erosion control best management practices will also be utilized to protect water quality in the project area.

PUBLIC HIGHWAYS
PROJECT-SPECIFIC WORKSHEET
FOR STANDARD APPLICATION

Water Division/Land Resources Management
Wetlands Bureau

Check the Status of your Application

RSA/Rule: RSA 482-A/ Env-Wt 522

APPLICANT LAST NAME, FIRST NAME, M.I.: NH Department of Transportation

This worksheet summarizes the criteria and requirements for a Standard Permit for "Public Highways", one of the 18 specific project types in Chapter Env-Wt 500. In addition to the project-specific criteria and requirements on this worksheet, all Standard Dredge and Fill Applications must meet the criteria and requirements listed in the Standard Dredge and Fill Application form (NHDES-W-06-012).

SECTION 1 - APPLICABILITY AND EXEMPTION (Env-Wt 527.01; Env-Wt 527.06(b))

This worksheet is for construction and maintenance projects for public highways in jurisdictional areas, but not for:

- Activities relating to stream crossings (which must be undertaken in accordance with Env-Wt 900);
- Public highway projects that impact tidal resources (which must be undertaken in accordance with Env-Wt 600); or
- Bank stabilization projects (which must be undertaken in accordance with Env-Wt 514).

Replacement of dislodged rocks on an existing rip-rap portion of a legally existing permitted road embankment to stabilize the structure may be done without a permit.

SECTION 2 - APPROVAL CRITERIA FOR PUBLIC HIGHWAY PROJECTS (Env-Wt 527.02)

An application for public highway project must meet the following approval criteria, subject to the rebuttable presumption in RSA 482-A:3, I-a that for applications proposed, sponsored, or administered by the New Hampshire Department of Transportation (NHDOT), NHDOT has exercised appropriate engineering judgment in the project's design:

☒ The project meets the design criteria specified in Env-Wt 527.04;

☒ The project is consistent with RSA 482-A:1, RSA 483, RSA 483-B, RSA 485-A, and RSA 212-A;

☒ The purpose of the project is to improve or maintain public safety, consistent with federal and state safety standards;

☒ The project will not cause displacement of flood storage wetlands or cause diversion of stream flow impacting abutting landowner property; and

☒ For a project in the 100-year floodplain, the project will not increase flood stages off-site.

SECTION 3 - APPLICATION REQUIREMENTS FOR PUBLIC HIGHWAY PROJECTS (Env-Wt 527.03)

Please provide the following information:

☒ A description of the scope of the project, the size of the impacts to aquatic resources, and the purpose of the project;

NHDOT proposes to reconstruct ~700 linear ft of NH 12 and the adjacent roadway slope in order to re-open the road. NH 12 was closed due to safety concerns on August 3rd following damage from storm events at the end of July 2021. There is currently a ~20 mi detour in place through Vermont. The road is in an unstable condition with saturated soils and is unsafe for traffic. There is a concrete slab underneath the pavement and a variable amount of pavement that ranges from 8 to 12 in thick. Differential settlement and a slope failure caused cracking in the roadway pavement and the concrete slab down the centerline. The proposed project would include reconstruction of NH 12 and the roadway slope. Drainage improvements are proposed and a ditchline located between the roadway and the railroad would be improved. Alternatives considered for the slope reconstruction include a reinforced soil slope and full excavation of the unsuitable roadway materials and replacement with new. There are forested and forested, scrub shrub wetlands at the toe of the road slope within the floodplain. 2,877 sq ft or perm and 12,772 sq ft of temp impacts to the palustrine forested wetland at the toe of the road slope are proposed. No stream impacts are proposed.

☒ An accurate drawing with existing and proposed structure dimensions clearly annotated to:

- ☒ Document existing site conditions;
- ☒ Detail the precise location of the project and show the impact of the proposed activity on jurisdictional areas;
- ☒ Show existing and proposed contours at 2-foot intervals;
- ☒ Show existing and proposed structure invert elevations on the plans; and
- ☒ Use a scale based on standard measures of whole units, such as an engineering rule of one to 10, provided that if plans are not printed at full scale, a secondary scale shall be noted on the plans that identifies the half scale unit of measurement;

☒ All easements and right-of-way acquisition area outlines in relation to the project;

☒ The name of the professional engineer who developed the plans, whether an employee of the applicant or at a consulting firm; and

☒ An erosion control plan that shows:

- ☒ Existing and proposed contours at 2-foot intervals, with existing contours shown with a lighter line weight and proposed contours shown with a heavier line weight such as a bold font; and
- ☒ The outermost limit of all work areas, including temporary phasing work, with perimeter controls.

SECTION 4 - DESIGN REQUIREMENTS FOR PUBLIC HIGHWAY PROJECTS (Env-Wt 527.04)

In addition to meeting all applicable criteria established in Env-Wt 300, all projects must:

☒ Protect significant function wetlands, watercourses, and priority resource area(s);

☒ Minimize impacts to wetland and riparian function;

☒ Maintain wetland and stream hydrology and function to the remaining aquatic resources;

☒ Use on-site measures to compensate for any loss of flood storage where the project proposes:

- Filling or placement of structures in a 100-year floodplain; or
- Greater than 0.5 acre-feet of fill volume or a road crossing that affects floodplain conveyance;

☒ Use on-site minimization and water quality protection measures to prevent direct discharge to surface waters and wetlands, including retention of vegetated filter strips between the construction area and the aquatic resource areas to disperse runoff with no direct discharge to natural wetlands or surface waters; and

☒ Where temporary impacts will occur, include re-establishment of a similar ecosystem using vegetative species and spacing that are as similar as practicable to what was removed unless the applicant shows that the proposed vegetative composition will provide higher functions and values.

SECTION 5 - CONSTRUCTION REQUIREMENTS FOR PUBLIC HIGHWAY PROJECTS (Env-Wt 527.05)

In addition to complying with all applicable conditions in Env-Wt 307, the following construction requirements apply to public highway projects:

☒ The permit shall be contingent on review and approval by NHDES of final stream diversion and erosion control plans that detail the timing and method of stream flow diversion during construction and show temporary siltation, erosion, and turbidity control measures to be implemented; and

☒ The contractor responsible for completion of the work shall use techniques described in Env-Wq 1504.06, Env-Wq 1504.16, Env-Wq 1505.02, Env-Wq 1506, and Env-Wq 1508.

SECTION 6 - PUBLIC HIGHWAY PROJECTS PROJECT CLASSIFICATION (Env-Wt 527.07)

Public highway projects shall be classified based on the dimensions established in Env-Wt 407, subject to the adjustments and project exceptions established in Env-Wt 407.

STATE OF NEW HAMPSHIRE
DEPARTMENT OF TRANSPORTATION
BUREAU OF ENVIRONMENT

CONFERENCE REPORT

PROJECT: Charlestown 43565
NH Route 12 Roadway Reopening

DATE OF CONFERENCE: August 18, 2021

LOCATION OF CONFERENCE: Zoom (virtual)

SUBJECT: NHDOT Natural Resource Agency Coordination Meeting

NOTES ON CONFERENCE:

Andy O'Sullivan introduced the project and explained that the NH Route 12 roadway is currently closed with a detour through Vermont.

The Project Manager, Jason Ayotte shared that the purpose of the project is to reopen NH Route 12 and explained that the Charlestown 43565 project area is approximately 1-mile north of the current construction for the Walpole-Charlestown project. J. Ayotte described that the project is working through the need for right-of-way acquisitions, easements and rights of entry. He stated that the main goal for the meeting, since specific design details are not available, is to describe the range of alternatives and why the work is necessary. The current road closure and detour are a significant concern. Public officials want NH Route 12 opened as soon as possible. The detour will impact school traffic, the local economy, and a farmer who typically moves his harvest in September. J. Ayotte showed a map to orient folks to the project location and explained that the project is near Dickerson Brook and the Connecticut River and adjacent to the railroad.

J. Ayotte described the conditions that led to the road closure. He stated that the region had the wettest July on record and storm damage in many towns. Storms on July 29th and July 30th dropped nearly 5 inches of rain in 6 hours. There were continued rain events through August 2nd when the slope failure was reported. Initially, NH Route 12 was reduced to one lane with two-way alternating traffic. Later, after a field review by the NHDOT Bureau of Materials and Research, the road was closed and a detour was established. J. Ayotte showed maps of the detour and explained that it is approximately 20 miles into Vermont. NHDOT District 2 and District 4 staff have been working diligently to reopen roadways in other areas of closures resulting from the storms.

J. Ayotte described the current conditions within the project area. He explained that the roadway is in an unstable condition with saturated soils. He shared that there is a concrete slab underneath a variable amount of pavement that ranges from 2 inches to 6 inches thick. Differential settlement caused cracking in the roadway pavement and the concrete slab down the centerline. It seems as through the concrete slab is actually holding the road together, though the drillers

have found some voids. The roadway is currently supporting the railroad embankment. There has been and continues to be groundwater seeping through the railroad slope.

J. Ayotte explained that the slope failure is approximately 300 feet long, the roadway differential settlement between the northbound and southbound lanes is around 500 feet long and the project team expects that the concrete pavement damage is around 700 feet long. NHDOT staff are currently investigating the limits of voids and unstable subgrade soils in the project area. They are also investigating the stability of the railroad embankment. There is poor drainage due to inadequate ditch lines and very high groundwater conditions. The project team believes the road was built on railroad materials.

J. Ayotte shared details about the project's purpose and that a lot is happening to develop the project concurrently. He explained that preliminary design is happening alongside the NEPA review and wetland permit application development. J. Ayotte is planning for a shortened bid period with advertising in early September 2021 and work beginning in mid-September. J. Ayotte stated construction duration is anticipated to be 10 to 12 weeks. The proposed solution to the failure is still being determined. For public involvement, J. Ayotte is planning to discuss the project at the Charlestown Board of Selectmen meeting next week. J. Ayotte explained that the team will be requesting an expedited permit as the project timeline and the standard wetland timelines are not compatible.

J. Ayotte explained some of the project constraints including that the project is avoiding any permanent impacts to the floodplain at the toe of the roadway slope and is trying to avoid the railroad zone of influence. J. Ayotte showed typical sections of the two alternatives currently being considered for the project. The first and preferred alternative is the reinforced soil slope, which would minimize impacts in the project area and rebuild the existing slope. Drainage improvements are proposed. The second alternative is full reconstruction and excavation to remove all the compromised soils and replace them. At this time, the depth of excavation that would be necessary is not known.

Rebecca Martin reviewed the natural resources in the project area. She explained that wetlands and one intermittent stream have been delineated in the project area. There are forested and forested, scrub shrub wetlands at the toe of the roadway slope near the floodplain. The back edges of the wetlands were not delineated. The wetlands at the toe of slope are expected to be impacted in order to construct the slope repairs. There is the potential for ditch work at the northern end of the project to impact the intermittent stream in the project area. However, the crossing itself is not expected to be impacted by the project. There is also a small wetland in the ditch between the railroad and the roadway that is anticipated to be impacted by ditch work for the project. The project does not propose any impacts to Dickerson Brook or the Connecticut River. R. Martin commented that on the aerial you can see the close proximity of the railroad to the roadway, which are closer together in the southern portion of the project and slightly more spaced out in the northern portion of the project.

R. Martin showed a table of preliminary impacts. R. Martin explained that, since the project impacts are not known at this time, the project team is planning to apply for a permit to cover the worst case scenario, assuming the most possible impacts including permanent impacts to the

wetlands at the toe of the slope for the reconstruction and temporary impact for construction of an access road. NHDOT is planning to request that the NHDES Commissioner expedite the permit application review timeline. Matt Urban has contacted Mary Ann Tilton and Karl Benedict to begin coordination and Mary Ann Tilton has shared guidance and rule references. The project team understands that the expedited request will require a complete wetland application and good cause to grant the request to expedite. The proposed permanent impacts to wetlands is less than 10,000 square feet, estimated at 7,000 square feet. R. Martin proposed that no mitigation be required to the emergency nature of the project and since permanent impacts are less than 10,000 square feet.

R. Martin explained that the project area wetlands are priority resource areas. Impacts are proposed to floodplain wetlands and there are documented occurrences of protected species in the project area.

R. Martin described that based on available mapping of the confluence of the Connecticut River and Dickerson Brook, the project is not within 250 feet of the Connecticut River, and so, is not under the jurisdiction of the Shoreland Water Quality Protection Act. The project is within 0.25 miles of the Connecticut River, so emails have been sent to the Connecticut River Joint Commissions and the Connecticut River Mount Ascutney LAC.

There are three federally listed species that were listed on the IPaC species list, northern long eared bat (NLEB), the dwarf wedge mussel and the northeastern bulrush. R. Martin explained that the project qualifies for the NLEB 4(d) rule and a project submittal form was sent through IPaC. Since no impacts are proposed to the Connecticut River nor Dickerson Brook, no dwarf wedge mussels are anticipated to be within the project area. Coordination with US Fish and Wildlife Service (USFWS) confirmed that the habitat in the project area does not appear to be suitable for northeastern bulrush. Consultation with USFWS is complete, pending the 30-day waiting period after submittal of the project for the NLEB 4(d) rule.

State special concern: bald eagle and northern leopard frog are on the projects NHB report. Coordination has been completed with NH Fish and Game Department and recommendations are being incorporated into the project plans. Recommendations include: to retain mature canopy trees with strong horizontal branching such as locust, oaks and pines wherever possible to preserve perching, winter roost and potential nesting trees for bald eagles; to use wildlife-friendly erosion control and avoid the use of welded plastic or 'biodegradable plastic' netting or thread (e.g. polypropylene) in erosion control matting; and to erect silt fence in late summer to exclude Northern Leopard Frog from the work area. R. Martin explained that the silt fence may need to be put up at the edge of the wetland and then new fence erected in the wetland at the edge of the project impacts if work might begin before the wetland permit is received.

R. Martin explained that the project does not propose any additional impervious area, so no permanent stormwater treatment is proposed. The project does seem likely to have more than 1 acre of impacts and require coverage under the Construction General Permit. Since the project is not within the shoreland zone, it is not clear if it will exceed the Alteration of Terrain threshold of 100,000 square feet of impacts. The project does propose temporary floodplain impacts, but

those will be restored. No conservation lands are known to be located near the project area. There are no LCIP (CLS) nor LCHIP properties in the project area.
***Edit: a response from DNCR was received and there are no LWCF State and Local Assistance Program assisted properties within any proximity of concern to this emergency road project.
A map of the wildlife action plan was shown, the project is located in supporting habitat and near highest ranked habitat.

R. Martin explained that the project was reviewed for cultural resources in accordance with the Programmatic Agreement and a no historic properties affected determination has been made.

Lori Sommer recommended sending the presentation to Karl Benedict. She was glad to hear that the expedited review is being coordinated with Karl Benedict and Mary Ann Tilton. L. Sommer agreed that the project is below the 10,000 square feet of impact threshold and does not require mitigation. She noted that the emergency status of the project does not influence the need for mitigation. L. Sommer noted that a good revegetation plan would be needed for the floodplain impacts with a couple of years of monitoring. She recommended staying in close contact with Karl Benedict.

A. O'Sullivan commented that this project is NHDOT's number one priority.

Carol Henderson commented that there seems to be a good plan developed with Kim Tuttle and requested to be kept in the loop regarding whether the project crosses the AoT threshold.

Mike Hicks inquired about the project funding and J. Ayotte explained that the project has a FHWA number and the intent is to receive FHWA reimbursement. M. Hicks requested that the wetland application be sent to ACOE at the same time it is sent to NHDES to expedite the review process.

R. Martin inquired about the planting plan and if it would need to be submitted with the wetland application. L. Sommer explained that the planting plan should be outlined in the wetland application with the intent of the plan explained and details of how the project would address a late season planting. She noted that the permit could be conditioned on a final plan being submitted at a later date.

Jamie Sikora inquired about whether the project is an immediate emergency repair or a permanent repair. J. Ayotte explained that he is in regular contact with Yamilee (sp?) at FHWA and that only the detour was an emergency repair. The work needed is beyond the District's capability. R. Martin explained that the project will require a NEPA review and she is working on a Programmatic C.E.

A. O'Sullivan agreed to send the project's presentation out to all NRACM attendees.

Wetland Function-Value Evaluation Form

Charlestown 43565
#1 PFO1E on plans

Total area of wetland_ unknown _man made?_ No Is wetland part of a wildlife corridor' Possible or a "habitat island"?_ No ___

Wetland I.D._____

Latitude 43.205752 _ongitude -72.431601

Adjacent land use_ Forested floodplain, roadway, railroad, forested upland slope. Distance to nearest roadway or other developmen Varies, ~40 ft to road

Prepared by: R. Martin _ate 08/25/2021 _

Dominant wetland systems present Palustrine Forested Contiguous undeveloped buffer zone present_ some buffer around Dickerson Brook

Wetland Impact:
Type_ permanent & temp ___Area_ see impact plans

Is the wetland a separate hydraulic system? No If not, where does the wetland lie in the drainage basin? wetland is within floodplain

Evaluation based on:
Office_____ Field_ x ___

How many tributaries contribute to the wetland? at least 1 intermittent stream north of project impacts and Dickerson Brook/ Connecticut River floodplain. _Wildlife & vegetation diversity/abundance (see atta

Corps manual wetland delineation completed? Y_ x _ N_____

Function/Value	_ _ _ty Y / N	Rationale (Reference #)*	Principal Functior(s)/Value(s)	Comments
Groundwater Recharge/Discharge		4, 7, 13, 15		A lot of groundwater moves through the RR, adjacent roadway and contributes to this wetland
Floodflow Alteration	Y	3, 5, 6, 8, 9, 10, 13, 16, 18	P	The wetland is within the floodplain of Dickerson Br. and the Conn. Ri. The wetland provides flood storage. The slope of the road and RR above is steep.
Fish and Shellfish Habitat		4, 6, 7, 8, 15, 16, 17		Subject wetland does not have open water for fish, adjacent to Dickerson Br. & Conn R.
Sediment/Toxicant Retention	Y	1, 4, 8, 9, 10, 16	P	Roadway & RR above wetland, no visible open water, located in floodplain - run off runs through wetland before entering Dickerson Br.
Nutrient Removal	Y	3, 4, 7, 8, 9, 10, 11	P	Vegetation in the wetland is quite thick, sheet flow and directed runoff from the roadway and railroad enters the wetland
Production Export		1, 7, 12, 14		
Sediment/Shoreline Stabilization		3, 7, 12, 14		
Wildlife Habitat	Y	8, 13, 15, 19, 20		Significant invasive plants present. Wetland in floodplain with easy connection to Dickerson Br. and Conn. R., wildlife could travel along floodplain
Recreation		5, 6, 9		
Educational/Scientific Value		1, 2, 5, 11		
Uniqueness/Heritage		11, 12, 17, 22		
Visual Quality/Aesthetics		1, 8, 11		
ES Endangered Species Habitat	Y	1		NHB report included state listed bald eagle and northern leopard frog
Other				

Notes:

* Refer to backup list of numbered considerations.

Memo

NH Natural Heritage Bureau
NHB DataCheck Results Letter

Please note: portions of this document are confidential.
Maps and NHB record pages are confidential and should be redacted from public documents.

To: Rebecca Martin, NH DOT
7 Hazen Drive
PO Box 483
Concord, NH 03302

From: Jessica Bouchard, NH Natural Heritage Bureau
Date: 8/12/2021 (valid until 08/12/2022)
Re: Review by NH Natural Heritage Bureau
Permits: NHDES - Wetland Standard Dredge & Fill - Major, USACE - General Permit, USCEQ - Federal: NEPA Review, USEPA - Stormwater Pollution Prevention

NHB ID: **NHB21-2582** Town: Charlestown Location: NH Route 12 north of the NH 12A intersection

Description: 43565: As a result of the July 29 storm damage, NH Route 12, just north of the NH 12A intersection, has experienced a slope failure and road settling along approximately 300' on the western side. The south bound lane is sliding and sinking making the road u nsafe for traffic. NH 12 is currently closed with a 20 mile detour into Vermont. Work will most likely involve rebuilding the washed out side slope and reconstruction of the select materials and pavement.

cc: Kim Tuttle

As requested, I have searched our database for records of rare species and exemplary natural communities, with the following results.

Comments **NHB: No Comments At This Time**
F&G: Nearest downstream occurrence of dwarf wedgemussel is approximately three miles away. Please describe any impacts to the bed or banks of the Connecticut River.
This site is within an area flagged for possible impacts on the federally-listed *Alasmidonta heterodon* (dwarf wedgemussel) in the Connecticut River

Invertebrate Species	**State[1]**	**Federal**	**Notes**
Dwarf Wedge Mussel (*Alasmidonta heterodon*)	E	E	Contact the NH Fish & Game Dept and the US Fish & Wildlife Service (see below).

Vertebrate species	**State[1]**	**Federal**	**Notes**
Bald Eagle (*Haliaeetus leucocephalus*)	SC	--	Contact the NH Fish & Game Dept (see below).

Department of Natural and Cultural Resources
Division of Forests and Lands
(603) 271-2214 fax: 271-6488

DNCR/NHB
172 Pembroke Rd.
Concord, NH 03301

Memo

NH Natural Heritage Bureau
NHB DataCheck Results Letter

Please note: portions of this document are confidential.
Maps and NHB record pages are confidential and should be redacted from public documents.

Northern Leopard Frog (*Lithobates pipiens*) SC -- Contact the NH Fish & Game Dept (see below).

[1]Codes: "E" = Endangered, "T" = Threatened, "SC" = Special Concern, "--" = an exemplary natural community, or a rare species tracked by NH Natural Heritage that has not yet been added to the official state list. An asterisk (*) indicates that the most recent report for that occurrence was more than 20 years ago.

Contact for all animal reviews: Kim Tuttle, NH F&G, (603) 271-6544.

A negative result (no record in our database) does not mean that a sensitive species is not present. Our data can only tell you of known occurrences, based on information gathered by qualified biologists and reported to our office. However, many areas have never been surveyed, or have only been surveyed for certain species. An on-site survey would provide better information on what species and communities are indeed present.

Department of Natural and Cultural Resources
Division of Forests and Lands
(603) 271-2214 fax: 271-6488

DNCR/NHB
172 Pembroke Rd.
Concord, NH 03301

Martin, Rebecca

From: Tuttle, Kim
Sent: Tuesday, August 17, 2021 10:49 AM
To: Martin, Rebecca
Cc: Henderson, Carol; Doperalski, Melissa
Subject: RE: Charlestown 43565 RE: NHB review: NHB21-2582

Hi Rebecca

That looks good to me. Kim

From: Martin, Rebecca <Rebecca.A.Martin@dot.nh.gov>
Sent: Tuesday, August 17, 2021 10:43 AM
To: Tuttle, Kim <Kim.A.Tuttle@wildlife.nh.gov>
Cc: Henderson, Carol <Carol.B.Henderson@wildlife.nh.gov>; Doperalski, Melissa <Melissa.J.Doperalski@wildlife.nh.gov>
Subject: RE: Charlestown 43565 RE: NHB review: NHB21-2582

Hi Kim,

Good idea on the picture. Until the wetland permit is received, I would anticipate asking that silt fence is erected around the work area- something like what is shown in the pink below (wetlands are in green). The work area will actually only be about half this long (700'), so I am just using this for illustrative purposes until I have the exact area of the work.

Thanks again,
Rebecca

From: Tuttle, Kim <Kim.A.Tuttle@wildlife.nh.gov>
Sent: Tuesday, August 17, 2021 10:13 AM
To: Martin, Rebecca <Rebecca.A.Martin@dot.nh.gov>
Cc: Henderson, Carol <Carol.B.Henderson@wildlife.nh.gov>; Doperalski, Melissa <Melissa.J.Doperalski@wildlife.nh.gov>
Subject: RE: Charlestown 43565 RE: NHB review: NHB21-2582

I think the semi circle would work – you may have to send over a simple sketch so we are on the same page.

From: Martin, Rebecca <Rebecca.A.Martin@dot.nh.gov>
Sent: Tuesday, August 17, 2021 10:07 AM
To: Tuttle, Kim <Kim.A.Tuttle@wildlife.nh.gov>
Cc: Henderson, Carol <Carol.B.Henderson@wildlife.nh.gov>; Doperalski, Melissa <Melissa.J.Doperalski@wildlife.nh.gov>
Subject: RE: Charlestown 43565 RE: NHB review: NHB21-2582

Hi Kim,

Thanks very much- I just wanted to be sure you were looking for a semi-circle to exclude them from entering the work area on the floodplain side and not concerned about a second fence for the area above the road and rail.

Best,
Rebecca

From: Tuttle, Kim <Kim.A.Tuttle@wildlife.nh.gov>
Sent: Tuesday, August 17, 2021 10:05 AM
To: Martin, Rebecca <Rebecca.A.Martin@dot.nh.gov>
Cc: Henderson, Carol <Carol.B.Henderson@wildlife.nh.gov>; Doperalski, Melissa <Melissa.J.Doperalski@wildlife.nh.gov>
Subject: RE: Charlestown 43565 RE: NHB review: NHB21-2582

Hi Rebecca,

If I am understanding you and the situation right, the silt fence that would initially be placed at the edge of the delineated wetland on the roadway embankment side (non-jurisdiction) would have to run up the steep slope and key in up to the road shoulder or railroad at each end so that the leopard frogs are prevented access to the area as they move across the landscape back to the streams and river to hibernate.

Kim

From: Martin, Rebecca <Rebecca.A.Martin@dot.nh.gov>
Sent: Tuesday, August 17, 2021 9:44 AM
To: Tuttle, Kim <Kim.A.Tuttle@wildlife.nh.gov>
Cc: Henderson, Carol <Carol.B.Henderson@wildlife.nh.gov>; Doperalski, Melissa <Melissa.J.Doperalski@wildlife.nh.gov>
Subject: RE: Charlestown 43565 RE: NHB review: NHB21-2582

Hi Kim,

Thanks for your guidance on this project. We will likely be advertising the project in early September, but are doubtful that we will have the wetland permit in hand when the work begins. Therefore, all of the work will be in non-jurisdictional areas (outside of wetlands) until the wetland permit is received. There are wetlands at the toe of the slope (see attached). We are hoping that the contractor can start work just before the end of the summer (summer ends on September 22 this year I think), so my thought would be that we have them put up a silt fence at the edge of the delineated wetland on the roadway embankment side (non-jurisdiction) until the wetland permit is received and the fence can be pushed further out to the project's impact limits. Does this approach sound acceptable?

Just to be sure- it does not sound like you are suggesting any silt fence above the road or railroad on the steep slope going away from the floodplains (above the work area) to exclude the Northern leopard frogs, just at the bottom of the slope, do I have that correct?

Best,

Rebecca

From: Tuttle, Kim <Kim.A.Tuttle@wildlife.nh.gov>
Sent: Monday, August 16, 2021 2:53 PM
To: Martin, Rebecca <Rebecca.A.Martin@dot.nh.gov>
Cc: Henderson, Carol <Carol.B.Henderson@wildlife.nh.gov>; Doperalski, Melissa <Melissa.J.Doperalski@wildlife.nh.gov>
Subject: RE: Charlestown 43565 RE: NHB review: NHB21-2582

Hi Rebecca,

We cannot write a final review without knowing if an AoT permit and the required wildlife and habitat assessment is needed but you have my assessment of no impacts to nesting eagles and recommendations about mature canopy tree protection and wildlife friendly erosion control. I imagine we will be following the lead of the USFWS when it comes to the dwarf wedgemussel determination. I think northern leopard frogs could be potentially impacted by the temporary impacts at the toe of slope which look to occur in very good floodplain habitat for them if work begins too early in the fall. Northern leopard frogs return to the water September to October to hibernate so the later the work in these floodplain areas, the better. Otherwise, silt fence would have to go up in late summer to exclude them from the toe of slope floodplain work area if you want to start in September/early October.

Kim Tuttle

From: Martin, Rebecca <Rebecca.A.Martin@dot.nh.gov>
Sent: Monday, August 16, 2021 2:19 PM
To: Tuttle, Kim <Kim.A.Tuttle@wildlife.nh.gov>
Cc: Henderson, Carol <Carol.B.Henderson@wildlife.nh.gov>
Subject: RE: Charlestown 43565 RE: NHB review: NHB21-2582

Hello Kim,

I had a look at a draft schedule and they are hoping to start work in late September 2021 and complete the project at the end of November 2021- I could see that turning into starting in October 2021 and wrapping up in December 2021.

This project is being presented at the NRACM on Wednesday.

Thank you,
Rebecca

From: Martin, Rebecca
Sent: Monday, August 16, 2021 12:23 PM
To: Tuttle, Kim <Kim.A.Tuttle@wildlife.nh.gov>
Cc: maria_tur@fws.gov; Hemmerlein, Mark <mark.t.hemmerlein@dot.nh.gov>
Subject: RE: Charlestown 43565 RE: NHB review: NHB21-2582

Hello Kim,

Thanks very much for your recommendations. I did send an email off to David Simmons at USFWS about this project this morning, so Maria heard about the project from him as well (IPaC Consultation Code 05E1NE00-2021-SLI-4354).

The project engineers have estimated the slope impact limits at the roadway toe of slope to be approximately 700 feet along the floodplain. There is an intermittent stream approximately 860’ north of the location where the road is

cracked/failing, but they may be doing some ditching work on the east side of the road (between the NH Route 12 and the railroad) leading up to it.

I am not sure about the project impact area at this time (for AoT). The project might include impacts within the shoreland zone, but we are still working on that. I am waiting to hear back about the project schedule, but my impression was they wanted to start ASAP to get the road back open, so work likely this fall. I will let you know when I hear more definitively. I have attached some photos- I reduced their size, so I am hoping they make it through to you.

Best,
Rebecca

From: Tuttle, Kim <Kim.A.Tuttle@wildlife.nh.gov>
Sent: Monday, August 16, 2021 10:11 AM
To: Martin, Rebecca <Rebecca.A.Martin@dot.nh.gov>
Cc: maria_tur@fws.gov
Subject: RE: Charlestown 43565 RE: NHB review: NHB21-2582

Hello Rebecca,

We do not expect impacts to nesting bald eagle as a result of the proposed work. Please retain mature canopy trees with strong horizontal branching such as locust, oaks and pines wherever possible to preserve perching, winter roost and potential nesting trees for bald eagle. Avoid the use of welded plastic or 'biodegradable plastic' netting or thread (e.g. polypropylene) in erosion control matting, if needed. There are numerous documented cases of reptiles, amphibians, other wildlife being trapped and killed in erosion control matting with synthetic netting and thread. The use of erosion control berm, Filtrexx Degradable Woven Silt Sock, or several 'wildlife friendly' options such as woven organic material (e.g. coco or jute matting such as North American Green SC150BN or equivalent) are readily available.

Do you have an idea of the linear impacts to the floodplain at the roadway toe of slope and could you send a representative photo of this habitat? When would the project take place? Will this require an AoT?

I am cc'ing Maria Tur at the USFWS so she is aware of the project as it falls in the review zone for dwarf wedge mussel.

Thanks,

Kim Tuttle
Certified Wildlife Biologist
NH Fish and Game
11 Hazen Drive
Concord, NH 03301
603-271-6544

From: Martin, Rebecca <Rebecca.A.Martin@dot.nh.gov>
Sent: Monday, August 16, 2021 9:55 AM
To: Tuttle, Kim <Kim.A.Tuttle@wildlife.nh.gov>
Subject: Charlestown 43565 RE: NHB review: NHB21-2582

Good morning Kim,

I am working on the environmental review for a project that is focused on reopening Route 12 in Charlestown after it was closed due to storm damage at the end of July. The project is adjacent to the area of 100-year floodplain associated with Dickerson Brook. The NHB species list (attached) includes the Dwarf wedgemussel, the Bald eagle and the Northern leopard frog. The project engineers are still working on the project design. The Route 12 roadway in the location is between the railroad and the floodplain. There is a steep slope (1.5:1) down to the floodplain from the roadway. At this time, the team believes the entire slope will need to be reconstructed with full box road reconstruction and drainage replacements. The ditch line on the railroad side would also be repaired. The current thinking is that the material under the roadway is unstable, which caused the failure. The team is thinking the project would need to excavate the material under the roadway and replace it with granular backfill and geogrid sheets. Best management practices will be used to protect water quality.

The project will not have any effects on the banks or channel of Dickerson Brook nor on the Connecticut River, so a no species present determination seems appropriate for Dwarf wedgemussel. The project impacts will be constrained to the road and roadway slope with only temporary impacts to the floodplain at the toe of the road slope. Unfortunately, due to the roadway being closed, the team is trying to advertise this project in early September and asking that I wrap up all environmental coordination in the next 10 or 12 days. Could you please send any conservation recommendations you might suggest for the Bald eagle and Northern leopard frog as soon as you are able to? Please let me know if any additional project details might be helpful. Apologies for the rushed request!

Thank you,
Rebecca

Rebecca Martin
Senior Environmental Manager
NH DOT Bureau of Environment
7 Hazen Drive
Concord, NH 03302
(603)271-6781
Rebecca.A.Martin@dot.nh.gov

From: DNCR: NHB Review <nhbreview@dncr.nh.gov>
Sent: Friday, August 13, 2021 1:44 PM
To: Martin, Rebecca <Rebecca.A.Martin@dot.nh.gov>
Cc: Tuttle, Kim <Kim.Tuttle@wildlife.nh.gov>
Subject: NHB review: NHB21-2582

Attached, please find the review we have completed. If your review memo includes potential impacts to plants or natural communities please contact me for further information. If your project had potential impacts to wildlife, please contact NH Fish and Game at the phone number listed on the review.

Best,
Jessica

Jessica Bouchard
Environmental Reviewer / Ecological Information Specialist

NH Natural Heritage Bureau
DNCR - Forests & Lands
172 Pembroke Rd
Concord, NH 03301
603-271-2834

United States Department of the Interior

FISH AND WILDLIFE SERVICE
New England Ecological Services Field Office
70 Commercial Street, Suite 300
Concord, NH 03301-5094
Phone: (603) 223-2541 Fax: (603) 223-0104
http://www.fws.gov/newengland

In Reply Refer To: August 06, 2021
Consultation Code: 05E1NE00-2021-SLI-4354
Event Code: 05E1NE00-2021-E-13259
Project Name: Charlestown 43565

Subject: List of threatened and endangered species that may occur in your proposed project location or may be affected by your proposed project

To Whom It May Concern:

The enclosed species list identifies threatened, endangered, proposed and candidate species, as well as proposed and final designated critical habitat, that may occur within the boundary of your proposed project and/or may be affected by your proposed project. The species list fulfills the requirements of the U.S. Fish and Wildlife Service (Service) under section 7(c) of the Endangered Species Act (Act) of 1973, as amended (16 U.S.C. 1531 *et seq.*).

New information based on updated surveys, changes in the abundance and distribution of species, changed habitat conditions, or other factors could change this list. Please feel free to contact us if you need more current information or assistance regarding the potential impacts to federally proposed, listed, and candidate species and federally designated and proposed critical habitat. Please note that under 50 CFR 402.12(e) of the regulations implementing section 7 of the Act, the accuracy of this species list should be verified after 90 days. This verification can be completed formally or informally as desired. The Service recommends that verification be completed by visiting the ECOS-IPaC website at regular intervals during project planning and implementation for updates to species lists and information. An updated list may be requested through the ECOS-IPaC system by completing the same process used to receive the enclosed list.

The purpose of the Act is to provide a means whereby threatened and endangered species and the ecosystems upon which they depend may be conserved. Under sections 7(a)(1) and 7(a)(2) of the Act and its implementing regulations (50 CFR 402 *et seq.*), Federal agencies are required to utilize their authorities to carry out programs for the conservation of threatened and endangered species and to determine whether projects may affect threatened and endangered species and/or designated critical habitat.

A Biological Assessment is required for construction projects (or other undertakings having similar physical impacts) that are major Federal actions significantly affecting the quality of the human environment as defined in the National Environmental Policy Act (42 U.S.C. 4332(2)(c)). For projects other than major construction activities, the Service suggests that a biological evaluation similar to a Biological Assessment be prepared to determine whether the project may affect listed or proposed species and/or designated or proposed critical habitat. Recommended contents of a Biological Assessment are described at 50 CFR 402.12.

If a Federal agency determines, based on the Biological Assessment or biological evaluation, that listed species and/or designated critical habitat may be affected by the proposed project, the agency is required to consult with the Service pursuant to 50 CFR 402. In addition, the Service recommends that candidate species, proposed species and proposed critical habitat be addressed within the consultation. More information on the regulations and procedures for section 7 consultation, including the role of permit or license applicants, can be found in the "Endangered Species Consultation Handbook" at:

http://www.fws.gov/endangered/esa-library/pdf/TOC-GLOS.PDF

Please be aware that bald and golden eagles are protected under the Bald and Golden Eagle Protection Act (16 U.S.C. 668 *et seq.*), and projects affecting these species may require development of an eagle conservation plan (http://www.fws.gov/windenergy/eagle_guidance.html). Additionally, wind energy projects should follow the wind energy guidelines (http://www.fws.gov/windenergy/) for minimizing impacts to migratory birds and bats.

Guidance for minimizing impacts to migratory birds for projects including communications towers (e.g., cellular, digital television, radio, and emergency broadcast) can be found at: http://www.fws.gov/migratorybirds/CurrentBirdIssues/Hazards/towers/towers.htm; http://www.towerkill.com; and http://www.fws.gov/migratorybirds/CurrentBirdIssues/Hazards/towers/comtow.html.

We appreciate your concern for threatened and endangered species. The Service encourages Federal agencies to include conservation of threatened and endangered species into their project planning to further the purposes of the Act. Please include the Consultation Tracking Number in the header of this letter with any request for consultation or correspondence about your project that you submit to our office.

Attachment(s):

- Official Species List

Official Species List

This list is provided pursuant to Section 7 of the Endangered Species Act, and fulfills the requirement for Federal agencies to "request of the Secretary of the Interior information whether any species which is listed or proposed to be listed may be present in the area of a proposed action".

This species list is provided by:

New England Ecological Services Field Office
70 Commercial Street, Suite 300
Concord, NH 03301-5094
(603) 223-2541

Project Summary

Consultation Code: 05E1NE00-2021-SLI-4354
Event Code: 05E1NE00-2021-E-13259
Project Name: Charlestown 43565
Project Type: TRANSPORTATION
Project Description: As a result of storm damage on July 29, 2021 there was a slope failure and road settling along approximately 300' on the western side of NH Route 12 north of the NH 12A intersection. The south bound lane is sliding and sinking making the road unsafe for traffic. NH 12 is currently closed with a 20 mile detour into Vermont. Work will most likely involve rebuilding the washed out side slope and reconstruction of the select materials and pavement.

Project Location:

Approximate location of the project can be viewed in Google Maps: https://www.google.com/maps/@43.204804300000006,-72.43189755318056,14z

Counties: Sullivan County, New Hampshire

Endangered Species Act Species

There is a total of 3 threatened, endangered, or candidate species on this species list.

Species on this list should be considered in an effects analysis for your project and could include species that exist in another geographic area. For example, certain fish may appear on the species list because a project could affect downstream species.

IPaC does not display listed species or critical habitats under the sole jurisdiction of NOAA Fisheries[1], as USFWS does not have the authority to speak on behalf of NOAA and the Department of Commerce.

See the "Critical habitats" section below for those critical habitats that lie wholly or partially within your project area under this office's jurisdiction. Please contact the designated FWS office if you have questions.

---

1. NOAA Fisheries, also known as the National Marine Fisheries Service (NMFS), is an office of the National Oceanic and Atmospheric Administration within the Department of Commerce.

Mammals

NAME	STATUS
Northern Long-eared Bat *Myotis septentrionalis* No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/9045	Threatened

Clams

NAME	STATUS
Dwarf Wedgemussel *Alasmidonta heterodon* No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/784	Endangered

Flowering Plants

NAME	STATUS
Northeastern Bulrush *Scirpus ancistrochaetus* No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/6715	Endangered

Critical habitats

THERE ARE NO CRITICAL HABITATS WITHIN YOUR PROJECT AREA UNDER THIS OFFICE'S JURISDICTION.

Martin, Rebecca

From: Tur, Maria <maria_tur@fws.gov>
Sent: Monday, August 16, 2021 11:39 AM
To: Martin, Rebecca; Simmons, David
Subject: Re: [EXTERNAL] NHDOT Charlestown 43565 Emergency Repair Project IPaC Consultation Code 05E1NE00-2021-SLI-4354

Hello Rebecca,

I looked at the photos and your description of the project area, and I agree that the habitat does not appear to be suitable for northeastern bulrush. Thank you for coordinating with us.

Maria E. Tur
U.S. Fish and Wildlife Service
New England Field Office
70 Commercial Street, Suite 300
Concord, NH 03301
Phone (603) 568-4871
FAX (603) 223-0104

http://www.fws.gov/newengland/

From: Martin, Rebecca <Rebecca.A.Martin@dot.nh.gov>
Sent: Monday, August 16, 2021 11:34 AM
To: Simmons, David <david_simmons@fws.gov>
Cc: Tur, Maria <maria_tur@fws.gov>
Subject: RE: [EXTERNAL] NHDOT Charlestown 43565 Emergency Repair Project IPaC Consultation Code 05E1NE00-2021-SLI-4354

Hello David,

Thank you for your response- I am also well.

Since you do not think the habitat looks suitable, I will move forward with a no species present determination for Northeastern bulrush.

Maria, if you would like any additional information about the project and proposed impacts, please let me know. I can request the location that was noted by NHB 0.6 miles from the project site if that would be helpful?

Best,
Rebecca

From: Simmons, David <david_simmons@fws.gov>
Sent: Monday, August 16, 2021 10:21 AM
To: Martin, Rebecca <Rebecca.A.Martin@dot.nh.gov>
Cc: Tur, Maria <maria_tur@fws.gov>

Subject: RE: [EXTERNAL] NHDOT Charlestown 43565 Emergency Repair Project IPaC Consultation Code 05E1NE00-2021-SLI-4354

EXTERNAL: Do not open attachments or click on links unless you recognize and trust the sender.

Good morning Rebecca,
Good to hear from you. I am doing well. I hope you are too. I looked at the photos you attached, and an aerial image, and that habitat does not appear suitable for northeastern bulrush. The typical wetlands in which the species is found are vernal pools/ephemeral wetlands and beaver flowages. And the area at the toe of the slope looks too overgrown for the species as well. I am curious about the northeastern bulrush occurrence 0.6 mile away; I don't recall there being a population in that part of NH/VT, but I may be misremembering. Maria (cc'd) might know better and would be the best contact if you need to discuss further. Have a good week,
David

~~~~~~
David Simmons
Supervisor, Endangered Species & FERC/Hydro Programs
U.S. Fish and Wildlife Service, New England Field Office
70 Commercial Street, Suite 300
Concord, New Hampshire 03301
Cell: 603-333-5440
Please visit our new website at www.fws.gov/newengland!
~~~~~~

From: Martin, Rebecca <Rebecca.A.Martin@dot.nh.gov>
Sent: Monday, August 16, 2021 9:39 AM
To: Simmons, David <david_simmons@fws.gov>
Subject: [EXTERNAL] NHDOT Charlestown 43565 Emergency Repair Project IPaC Consultation Code 05E1NE00-2021-SLI-4354

This email has been received from outside of DOI - Use caution before clicking on links, opening attachments, or responding.

Good morning David,

I hope that this message finds you well.

I am working on the environmental review for a project that is focused on reopening Route 12 in Charlestown after it was closed due to storm damage at the end of July. The project is adjacent to the area of 100-year floodplain associated with Dickerson Brook. The IPaC species list for the project area (attached) includes the NLEB, the Dwarf wedgemussel and the Northeastern bulrush. The project engineers are still working on the project design. The Route 12 roadway in the location is between the railroad and the floodplain. There is a steep slope (1.5:1) down to the floodplain from the roadway. At this time, the team believes the entire slope will need to be reconstructed with full box road reconstruction and drainage replacements. The ditch line on the railroad side would also be repaired. The current thinking is that the material under the roadway is unstable, which caused the failure. The team is thinking the project would need to excavate the material under the roadway and replace it with granular backfill and geogrid sheets.

The project will qualify for the NLEB 4(d) rule (no hibernacula or maternity roost trees nearby) and will not have any effects on the banks or channel of Dickerson Brook nor on the Connecticut River, so a no species present determination

seems appropriate for Dwarf wedgemussel. This is the first project that I have had which included the Northeastern bulrush on the IPaC list, so I was hoping to check-in with one of the USFWS biologists about this plant. Unfortunately, due to the roadway being closed, the team is trying to advertise this project in early September and asking that I wrap up all environmental coordination in the next 10 or 12 days. Could you please refer me to someone that might be available in the near term to check-in about the Northeastern bulrush?

Some additional information (in case it is easiest to forward this email), NHB shared that the nearest Northeastern bulrush record is 0.6 miles away and it does not appear on the NHB report (attached). From what I am reading, the Northeastern bulrush can be found in a variety of wetland habitats (often with organic soils and fluctuating water levels) and also typically in full sun. Except for one small ditch/wetland between NH Route 12 and the railroad, the wetlands we found on site were forested and forested/scrub shrub. They were shaded and covered with multiflora rose. I have attached some representative photos of the forested/scrub shrub wetlands at the toe of the road slope and a couple of photos of the wetland ditch located between the road and the railroad. We did have some Northeastern bulrush keys on hand during our review of the wetlands and we did not see any plants that met the description. The ditch looks like it is semi-regularly mowed.

Apologies for the requested rush and thank you for your help,
Rebecca

Rebecca Martin
Senior Environmental Manager
NH DOT Bureau of Environment
7 Hazen Drive
Concord, NH 03302
(603)271-6781
Rebecca.A.Martin@dot.nh.gov

United States Department of the Interior

FISH AND WILDLIFE SERVICE
New England Ecological Services Field Office
70 Commercial Street, Suite 300
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Phone: (603) 223-2541 Fax: (603) 223-0104
http://www.fws.gov/newengland

In Reply Refer To: August 17, 2021
Consultation code: 05E1NE00-2021-TA-4354
Event Code: 05E1NE00-2021-E-13523
Project Name: Charlestown 43565

Subject: Verification letter for the 'Charlestown 43565' project under the January 5, 2016, Programmatic Biological Opinion on Final 4(d) Rule for the Northern Long-eared Bat and Activities Excepted from Take Prohibitions.

Dear Rebecca Martin:

The U.S. Fish and Wildlife Service (Service) received on August 17, 2021 your effects determination for the 'Charlestown 43565' (the Action) using the northern long-eared bat (*Myotis septentrionalis*) key within the Information for Planning and Consultation (IPaC) system. This IPaC key assists users in determining whether a Federal action is consistent with the activities analyzed in the Service's January 5, 2016, Programmatic Biological Opinion (PBO). The PBO addresses activities excepted from "take"[1] prohibitions applicable to the northern long-eared bat under the Endangered Species Act of 1973 (ESA) (87 Stat.884, as amended; 16 U.S.C. 1531 et seq.).

Based upon your IPaC submission, the Action is consistent with activities analyzed in the PBO. The Action may affect the northern long-eared bat; however, any take that may occur as a result of the Action is not prohibited under the ESA Section 4(d) rule adopted for this species at 50 CFR §17.40(o). Unless the Service advises you within 30 days of the date of this letter that your IPaC-assisted determination was incorrect, this letter verifies that the PBO satisfies and concludes your responsibilities for this Action under ESA Section 7(a)(2) with respect to the northern long-eared bat.

Please report to our office any changes to the information about the Action that you submitted in IPaC, the results of any bat surveys conducted in the Action area, and any dead, injured, or sick northern long-eared bats that are found during Action implementation. If the Action is not completed within one year of the date of this letter, you must update and resubmit the information required in the IPaC key.

This IPaC-assisted determination allows you to rely on the PBO for compliance with ESA Section 7(a)(2) only for the northern long-eared bat. It **does not** apply to the following ESA-protected species that also may occur in the Action area:

- Dwarf Wedgemussel *Alasmidonta heterodon* Endangered
- Northeastern Bulrush *Scirpus ancistrochaetus* Endangered

If the Action may affect other federally listed species besides the northern long-eared bat, a proposed species, and/or designated critical habitat, additional consultation between you and this Service office is required. If the Action may disturb bald or golden eagles, additional coordination with the Service under the Bald and Golden Eagle Protection Act is recommended.

---

[1]Take means to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct [ESA Section 3(19)].

Action Description
You provided to IPaC the following name and description for the subject Action.

1. Name

Charlestown 43565

2. Description

The following description was provided for the project 'Charlestown 43565':

> As a result of storm damage on July 29, 2021 there was a slope failure and road settling along approximately 300' on the western side of NH Route 12 north of the NH 12A intersection. The south bound lane is sliding and sinking making the road unsafe for traffic. NH 12 is currently closed with a 20 mile detour into Vermont. Work will most likely involve rebuilding the washed out side slope and reconstruction of the select materials and pavement.

Approximate location of the project can be viewed in Google Maps: https://www.google.com/maps/@43.204804300000006,-72.43189755318056,14z

Determination Key Result

This Federal Action may affect the northern long-eared bat in a manner consistent with the description of activities addressed by the Service's PBO dated January 5, 2016. Any taking that may occur incidental to this Action is not prohibited under the final 4(d) rule at 50 CFR §17.40(o). Therefore, the PBO satisfies your responsibilities for this Action under ESA Section 7(a)(2) relative to the northern long-eared bat.

Determination Key Description: Northern Long-eared Bat 4(d) Rule

This key was last updated in IPaC on May 15, 2017. Keys are subject to periodic revision.

This key is intended for actions that may affect the threatened northern long-eared bat.

The purpose of the key for Federal actions is to assist determinations as to whether proposed actions are consistent with those analyzed in the Service's PBO dated January 5, 2016.

Federal actions that may cause prohibited take of northern long-eared bats, affect ESA-listed species other than the northern long-eared bat, or affect any designated critical habitat, require ESA Section 7(a)(2) consultation in addition to the use of this key. Federal actions that may affect species proposed for listing or critical habitat proposed for designation may require a conference under ESA Section 7(a)(4).

Determination Key Result

This project may affect the threatened Northern long-eared bat; therefore, consultation with the Service pursuant to Section 7(a)(2) of the Endangered Species Act of 1973 (87 Stat.884, as amended; 16 U.S.C. 1531 et seq.) is required. However, based on the information you provided, this project may rely on the Service's January 5, 2016, *Programmatic Biological Opinion on Final 4(d) Rule for the Northern Long-Eared Bat and Activities Excepted from Take Prohibitions* to fulfill its Section 7(a)(2) consultation obligation.

Qualification Interview

1. Is the action authorized, funded, or being carried out by a Federal agency?

   Yes

2. Have you determined that the proposed action will have "no effect" on the northern long-eared bat? (If you are unsure select "No")

   No

3. Will your activity purposefully **Take** northern long-eared bats?

   No

4. [Semantic] Is the project action area located wholly outside the White-nose Syndrome Zone?

   Automatically answered
   No

5. Have you contacted the appropriate agency to determine if your project is near a known hibernaculum or maternity roost tree?

   Location information for northern long-eared bat hibernacula is generally kept in state Natural Heritage Inventory databases – the availability of this data varies state-by-state. Many states provide online access to their data, either directly by providing maps or by providing the opportunity to make a data request. In some cases, to protect those resources, access to the information may be limited. A web page with links to state Natural Heritage Inventory databases and other sources of information on the locations of northern long-eared bat roost trees and hibernacula is available at www.fws.gov/midwest/endangered/mammals/nleb/nhisites.html.

   Yes

6. Will the action affect a cave or mine where northern long-eared bats are known to hibernate (i.e., hibernaculum) or could it alter the entrance or the environment (physical or other alteration) of a hibernaculum?

   No

7. Will the action involve Tree Removal?

   Yes

8. Will the action only remove hazardous trees for the protection of human life or property?

   No

9. Will the action remove trees within 0.25 miles of a known northern long-eared bat hibernaculum at any time of year?

   No

10. Will the action remove a known occupied northern long-eared bat maternity roost tree or any trees within 150 feet of a known occupied maternity roost tree from June 1 through July 31?

    No

Project Questionnaire

If the project includes forest conversion, report the appropriate acreages below. Otherwise, type '0' in questions 1-3.

1. Estimated total acres of forest conversion:

1.5

2. If known, estimated acres of forest conversion from April 1 to October 31

1.5

3. If known, estimated acres of forest conversion from June 1 to July 31

0

If the project includes timber harvest, report the appropriate acreages below. Otherwise, type '0' in questions 4-6.

4. Estimated total acres of timber harvest

0

5. If known, estimated acres of timber harvest from April 1 to October 31

0

6. If known, estimated acres of timber harvest from June 1 to July 31

0

If the project includes prescribed fire, report the appropriate acreages below. Otherwise, type '0' in questions 7-9.

7. Estimated total acres of prescribed fire

0

8. If known, estimated acres of prescribed fire from April 1 to October 31

0

9. If known, estimated acres of prescribed fire from June 1 to July 31

0

If the project includes new wind turbines, report the megawatts of wind capacity below. Otherwise, type '0' in question 10.

10. What is the estimated wind capacity (in megawatts) of the new turbine(s)?

0

Section 106 Programmatic Agreement – Cultural Resources Review Effect Finding

Appendix B Certification – Activities with Minimal Potential to Cause Effects

Date Reviewed: (Desktop or Field Review Date)	8/12/2021		
Project Name:	Charlestown		
State Number:	43565	**FHWA Number:**	**X-A005(163)**
Environmental Contact:	Rebecca Martin	**DOT**	
Email Address:	Rebecca.Martin@dot.nh.gov	**Project Manager:**	Timothy Dunn

Project Description: The proposed project is an emergency repair on NH RT 12, a major north-south route, due to wash outs, slope failure and road settling along approximately 300 ft on the west side of the road. A railroad corridor lies immediately east and the Connecticut river floodplain lies downslope to the west. The road has been closed as the southbound lane is sliding and sinking making the road unsafe for traffic. There is a 20-mile detour into VT. Proposed actions will most likely involve rebuilding the washed out side slope and reconstruction of select materials and pavement.

Please select the applicable activity/activities:

Highway and Roadway Improvements	
☒	1. Modernization and general highway maintenance **that may require additional highway right-of-way or easement**, including: d. ditching, provided excavation does not exceed 24" and is not located within 25' of a cemetery g. placement of riprap and/or other erosion control measures to prevent erosion of waterway banks and bridge piers, provided no excavation is required
☐	2. Installation of rumble strips or rumble stripes
☐	3. Installation or replacement of pole-mounted signs
☒	4. Guardrail replacement, provided any extension does not connect to a bridge older than 50 years old (unless it does already), and there is no change in access associated with the extension
Bridge and Culvert Improvements	
☐	5. Culvert replacement (excluding stone box culverts), when the culvert is less than 60" in diameter and excavation for replacement is limited to previously disturbed areas
☐	6. Bridge deck preservation and replacement, as long as no character defining features are impacted
☐	7. Non-historic bridge and culvert maintenance, renovation, or total replacement, **that may require minor additional right-of-way or easement**, including: Choose an item. Choose an item.
☐	8. Historic bridge maintenance activities within the limits of existing right-of-way, including: Choose an item. Choose an item.
☒	9. Stream and/or slope stabilization and restoration activities (including removal of debris or sediment obstructing the natural waterway, or any non-invasive action to restore natural conditions)
Bicycle and Pedestrian Improvements	
☐	10. Construction of pedestrian walkways, sidewalks, sidewalk tip-downs, small passenger shelters, and alterations to facilities or vehicles in order to make them accessible for elderly and handicapped persons
☐	11. Installation of bicycle racks
☐	12. Recreational trail construction
☐	13. Recreational trail maintenance when done on existing alignment
☐	14. Construction of bicycle lanes and shared use paths and facilities within the existing right-of-way

Section 106 Programmatic Agreement – Cultural Resources Review Effect Finding

Appendix B Certification – Activities with Minimal Potential to Cause Effects

Railroad Improvements	
☒	15. Modernization, maintenance, and safety improvements of railroad facilities within the existing railroad or highway right-of-way, **provided no historic railroad features are impacted,** including, but not limited to: c. rail bed maintenance Choose an item.
☐	16. In-kind replacement of modern railroad features (i.e. those features that are less than 50 years old)
☐	17. Modernization/modification of railroad/roadway crossings provided that all work is undertaken within the limits of the roadway structure (edge of roadway fill to edge of roadway fill) and no associated character defining features are impacted
Other Improvements	
☐	18. Installation of Intelligent Transportation Systems
☐	19. Acquisition or renewal of scenic, conservation, habitat, or other land preservation easements where no construction will occur
☐	20. Rehabilitation or replacement of existing storm drains.
☐	21. Maintenance of stormwater treatment features and related infrastructure

Please describe how this project is applicable under Appendix B of the Programmatic Agreement.

The proposed project activities include rebuilding the washed out side slope and reconstruction of select materials and pavement, as well as ditching and other erosion control measures to prevent further erosion of railroad embankment, road, and banks. These activities comply with undertakings of Appendix B Certification for Projects with minimal Potential to Cause Effects. Removal of pavement, resurfacing and marking/striping fall within Appendix A, Activities with no Potential to Cause Effect.

Please submit this Certification Form along with the Transportation RPR, including photographs, USGS maps, design plans and as-built plans, if available, for review. Note: The RPR can be waived for in-house projects, please consult Cultural Resources Program Staff.

Coordination Efforts:

Has an RPR been submitted to NHDOT for this project?	No	NHDHR R&C # assigned?	N/A
Please identify public outreach effort contacts; method of outreach and date:	NHDOT cultural resources discussed the project with NHDHR. Edelmann & Miller discussed that the National register eligible Sullivan RR character defining features will not be impacted. Charles & Trubey concurred that archaeological sensitivity is low due to the steeply sloping terrain.		

Finding: (To be filled out by NHDOT Cultural Resources Staff)

☐	**No Potential to Cause Effects**	☒	**No Historic Properties Affected**
This finding serves as the Section 106 Memorandum of Effect. No further coordination is necessary.			
☐	**This project does *not* comply with Appendix B. Review will continue under Stipulation VII of the Programmatic Agreement. Please contact NHDOT Cultural Resources Staff to determine next steps.**		
NHDOT comments:			

Sheila Charles 8/12/2021

NHDOT Cultural Resources Staff	Date

Coordination of the Section 106 process should begin as early as possible in the planning phase of the project (undertaking) so as not to cause a delay.

Project sponsors should not predetermine a Section 106 finding under the assumption a project is limited to the activities listed in Appendix B until this form is signed by the NHDOT Bureau of Environment Cultural Resources Program staff.

Every project shall be coordinated with, and reviewed by the NHDOT-BOE Cultural Resources Program in accordance with the *Programmatic Agreement Among the Federal Highway Administration, the New Hampshire State Historic Preservation Office, the Army Corps of Engineers, New England District, the Advisory Council on Historic Preservation, and the New Hampshire Department of Transportation Regarding the Federal Aid Highway Program in New Hampshire*. In accordance with the Advisory Council's regulations, we will continue to consult, as appropriate, as this project proceeds.

If any portion of the project is not entirely limited to any one or a combination of the activities specified in Appendix B (with, or without the inclusion of any activities listed in Appendix A), please continue discussions with NHDOT Cultural Resources staff.

This No Potential to Cause Effect or No Historic Properties Affected project determination is your Section 106 finding, as defined in the Programmatic Agreement.

Should project plans change, please inform the NHDOT Cultural Resources staff in accordance with Stipulation VII of the Programmatic Agreement.

US Army Corps of Engineers®
New England District

Appendix B

Regional General Permits (GPs)
Required Information and Corps Secondary Impacts Checklist

In order for the Corps of Engineers to properly evaluate your application, applicants must submit the following information along with the New Hampshire DES Wetlands Bureau application or permit notification forms. Some projects may require more information. For a more comprehensive checklist, go to www.nae.usace.army.mil/regulatory, "Forms/Publications" and then "Application and Plan Guideline Checklist." Check with the Corps at (978) 318-8832 for project-specific requirements. For your convenience, this Appendix B is also attached to the State of New Hampshire DES Wetlands Bureau application and Permit by Notification forms.

All Projects:

- Corps application form (ENG Form 4345) as appropriate.
- Photographs of wetland/waterway to be impacted.
- Purpose of the project.
- Legible, reproducible black and white (no color) plans no larger than 11"x17" with bar scale. Provide locus map and plan views of the entire property.
- Typical cross-section views of all wetland and waterway fill areas and wetland replication areas.
- In navigable waters, show mean low water (MLW) and mean high water (MHW) elevations. Show the high tide line (HTL) elevations when fill is involved. In other waters, show ordinary high water (OHW) elevation.
- On each plan, show the following for the project:
- Vertical datum and the NAVD 1988 equivalent with the vertical units as U.S. feet. Don't use local datum. In coastal waters this may be mean higher high water (MHHW), mean high water (MHW), mean low water (MLW), mean lower low water (MLLW) or other tidal datum with the vertical units as U.S. feet. MLLW and MHHW are preferred. Provide the correction factor detailing how the vertical datum (e.g., MLLW) was derived using the latest National Tidal Datum Epoch for that area, typically 1983-2001.
- Horizontal state plane coordinates in U.S. survey feet based on the Traverse Mercator Grid system for the State of New Hampshire (Zone 2800) NAD 83.
- Show project limits with existing and proposed conditions.
- Limits of any Federal Navigation Project in the vicinity of the project area and horizontal State Plane Coordinates in U.S. survey feet for the limits of the proposed work closest to the Federal Navigation Project;
- Volume, type, and source of fill material to be discharged into waters and wetlands, including the area(s) (in square feet or acres) of fill in wetlands, below the ordinary high water in inland waters and below the high tide line in coastal waters.
- Delineation of all waterways and wetlands on the project site,:
- Use Federal delineation methods and include Corps wetland delineation data sheets. See GC 2 and www.nero.noaa.gov/hcd for eelgrass survey guidance.
- GP 3, Moorings, contains eelgrass survey requirements for the placement of moorings.
- For activities involving discharges of dredged or fill material into waters of the U.S., include a statement describing how impacts to waters of the U.S. are to be avoided and minimized, and either a statement describing how impacts to waters of the U.S. are to be compensated for (or a conceptual or detailed mitigation plan) or a statement explaining why compensatory mitigation should not be required for the proposed impacts. Please contact the Corps for guidance.

US Army Corps of Engineers®
New England District

New Hampshire General Permits (GPs)
Appendix B - Corps Secondary Impacts Checklist
(for inland wetland/waterway fill projects in New Hampshire)

1. Attach any explanations to this checklist. Lack of information could delay a Corps permit determination.
2. All references to "work" include all work associated with the project construction and operation. Work includes filling, clearing, flooding, draining, excavation, dozing, stumping, etc.
3. See GC 5, regarding single and complete projects.
4. Contact the Corps at (978) 318-8832 with any questions.

1. Impaired Waters	Yes	No
1.1 Will any work occur within 1 mile upstream in the watershed of an impaired water? See http://des.nh.gov/organization/divisions/water/wmb/section401/impaired_waters.htm to determine if there is an impaired water in the vicinity of your work area.*	X	
2. Wetlands	Yes	No
2.1 Are there are streams, brooks, rivers, ponds, or lakes within 200 feet of any proposed work?	X	
2.2 Are there proposed impacts to SAS, special wetlands. Applicants may obtain information from the NH Department of Resources and Economic Development Natural Heritage Bureau (NHB) DataCheck Tool for information about resources located on the property at https://www2.des.state.nh.us/nhb_datacheck/. The book Natural Community Systems of New Hampshire also contains specific information about the natural communities found in NH.		X
2.3 If wetland crossings are proposed, are they adequately designed to maintain hydrology, sediment transport & wildlife passage? N/A		
2.4 Would the project remove part or all of a riparian buffer? (Riparian buffers are lands adjacent to streams where vegetation is strongly influenced by the presence of water. They are often thin lines of vegetation containing native grasses, flowers, shrubs and/or trees that line the stream banks. They are also called vegetated buffer zones.)		X
2.5 The overall project site is more than 40 acres?		X
2.6 What is the area of the previously filled wetlands?	N/A	
2.7 What is the area of the proposed fill in wetlands?	2,877 sq ft	
2.8 What is the % of previously and proposed fill in wetlands to the overall project site?	N/A	
3. Wildlife	Yes	No
3.1 Has the NHB & USFWS determined that there are known occurrences of rare species, exemplary natural communities, Federal and State threatened and endangered species and habitat, in the vicinity of the proposed project? (All projects require an NHB ID number & a USFWS IPAC determination.) NHB DataCheck Tool: https://www2.des.state.nh.us/nhb_datacheck/ USFWS IPAC website: https://ecos.fws.gov/ipac/location/index	X	

3.2 Would work occur in any area identified as either "Highest Ranked Habitat in N.H." or "Highest Ranked Habitat in Ecological Region"? (These areas are colored magenta and green, respectively, on NH Fish and Game's map, "2010 Highest Ranked Wildlife Habitat by Ecological Condition.") Map information can be found at: • PDF: www.wildlife.state.nh.us/Wildlife/Wildlife_Plan/highest_ranking_habitat.htm. • Data Mapper: www.granit.unh.edu. • GIS: www.granit.unh.edu/data/downloadfreedata/category/databycategory.html.		X	
3.3 Would the project impact more than 20 acres of an undeveloped land block (upland, wetland/waterway) on the entire project site and/or on an adjoining property(s)?			X
3.4 Does the project propose more than a 10-lot residential subdivision, or a commercial or industrial development?			X
3.5 Are stream crossings designed in accordance with the GC 21?	N/A		
4. Flooding/Floodplain Values		Yes	No
4.1 Is the proposed project within the 100-year floodplain of an adjacent river or stream?		X*	
4.2 If 4.1 is yes, will compensatory flood storage be provided if the project results in a loss of flood storage?	N/A		
5. Historic/Archaeological Resources			
For a minimum, minor or major impact project - a copy of the Request for Project Review (RPR) Form (www.nh.gov/nhdhr/review**)** with your DES file number shall be sent to the NH Division of Historical Resources as required on Page 11 GC 8(d) of the GP document**			X^

*Although this checklist utilizes state information, its submittal to the Corps is a Federal requirement.
** If your project is not within Federal jurisdiction, coordination with NH DHR is not required under Federal law.
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4.1 * Most of the proposed project is outside of the floodplain. There are some impacts to the floodplain proposed. Those impacts will be restored and there will be no change to flood storage.

5 ^ The project qualifies for a Section 106 Programmatic Agreement under Appendix B as an activity with minimal potential to cause effects. The review was processed at NHDOT and no RPR was sent to DHR.

WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: Rt 12 City/County: Charlestown Sampling Date: 8/20/21

Applicant/Owner: NHDOT State: NH Sampling Point: Wetland

Investigator(s): Deidra Benjamin Section, Township, Range: _____

Landform (hillslope, terrace, etc.): Floodplain Local relief (concave, convex, none): concave Slope (%): 5-10%

Subregion (LRR or MLRA): _____ Lat: _____ Long: _____ Datum: _____

Soil Map Unit Name: _____ NWI classification: _____

Are climatic / hydrologic conditions on the site typical for this time of year? Yes _____ No X (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes X No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes X No _____	**Is the Sampled Area within a Wetland?** Yes X No _____
Hydric Soil Present? Yes X No _____	
Wetland Hydrology Present? Yes X No _____	If yes, optional Wetland Site ID: _____

Remarks: (Explain alternative procedures here or in a separate report.)

Area is within a floodplain wetland system.
Rainfall in this part of the state has been exceptionally high.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- X High Water Table (A2)
- X Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- X Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ Marl Deposits (B15)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ___ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes _____ No X Depth (inches): _____

Water Table Present? Yes X No _____ Depth (inches): _____

Saturation Present? (includes capillary fringe) Yes X No _____ Depth (inches): _____

Wetland Hydrology Present? Yes X No _____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

VEGETATION – Use scientific names of plants. Sampling Point: _____

Tree Stratum (Plot size: 30')	Absolute % Cover	Dominant Species?	Indicator Status
1. Acer Rubrum	50	✓	FAC
2. Ulmus americana	25	✓	FACW
3. Prunus serotina	15		FACU
4.			
5.			
6.			
7.			
	90	= Total Cover	95

Sapling/Shrub Stratum (Plot size: 15')			
1. Acer rubrum	10		FAC
2. Ulmus americana	10		FACW
3. Cornus sericea/alba	20	✓	FACW
4. Sambucus nigra	25	✓	FACW
5.			
6.			
7.			
	65	= Total Cover	32.5

Herb Stratum (Plot size: 5')			
1. Rubus occidentalis spp	10		
2. Impatiens capensis	90	✓	FACW
3. Vitis spp	5		
4. Osmundastrum cinnamomeum	20		FACW
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			
	125	= Total Cover	62.5

Woody Vine Stratum (Plot size: _____)			
1.			
2.			
3.			
4.			
		= Total Cover	

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 5 (A)

Total Number of Dominant Species Across All Strata: 5 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100 % (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species _____	x 1 = _____
FACW species _____	x 2 = _____
FAC species _____	x 3 = _____
FACU species _____	x 4 = _____
UPL species _____	x 5 = _____
Column Totals: _____ (A)	_____ (B)

Prevalence Index = B/A = _____

Hydrophytic Vegetation Indicators:

✓ 1 - Rapid Test for Hydrophytic Vegetation

✓ 2 - Dominance Test is >50%

___ 3 - Prevalence Index is ≤3.0[1]

___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Vegetation Strata:

Tree – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/shrub – Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vines – All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? Yes _____ No _____

Remarks: (Include photo numbers here or on a separate sheet.)

SOIL

Sampling Point: _____

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
3-0	10YR 2/1						Organic	
0-14	10YR 2/1	98	10YR 5/8	2%	C	PL/M	FSL	
14-24+	2.5Y 4/1	95	10YR 5/8	5	C	M	FS	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ Depleted Below Dark Surface (A11)
- X Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7) **(LRR R, MLRA 149B)**
- ___ Polyvalue Below Surface (S8) **(LRR R, MLRA 149B)**
- ___ Thin Dark Surface (S9) **(LRR R, MLRA 149B)**
- ___ Loamy Mucky Mineral (F1) **(LRR K, L)**
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10) **(LRR K, L, MLRA 149B)**
- ___ Coast Prairie Redox (A16) **(LRR K, L, R)**
- ___ 5 cm Mucky Peat or Peat (S3) **(LRR K, L, R)**
- ___ Dark Surface (S7) **(LRR K, L)**
- ___ Polyvalue Below Surface (S8) **(LRR K, L)**
- ___ Thin Dark Surface (S9) **(LRR K, L)**
- ___ Iron-Manganese Masses (F12) **(LRR K, L, R)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 149B)**
- ___ Mesic Spodic (TA6) **(MLRA 144A, 145, 149B)**
- ___ Red Parent Material (F21)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes _____ No _____

Remarks:

WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: Rt 12 City/County: Charlestown Sampling Date: 8/20/21

Applicant/Owner: NHDOT State: NH Sampling Point: Upland

Investigator(s): Deidra Benjamin Section, Township, Range: _____

Landform (hillslope, terrace, etc.): Road Shoulder/slope Local relief (concave, convex, none): slope Slope (%): 5-10%

Subregion (LRR or MLRA): _____ Lat: _____ Long: _____ Datum: _____

Soil Map Unit Name: _____ NWI classification: _____

Are climatic / hydrologic conditions on the site typical for this time of year? Yes _____ No X (If no, explain in Remarks.)

Are Vegetation X, Soil X, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes _____ No X

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes _____	No X	**Is the Sampled Area within a Wetland?** Yes _____ No X
Hydric Soil Present?	Yes _____	No X	
Wetland Hydrology Present?	Yes _____	No X	If yes, optional Wetland Site ID: _____

Remarks: (Explain alternative procedures here or in a separate report.)

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1)
- ___ Sediment Deposits (B2)
- ___ Drift Deposits (B3)
- ___ Algal Mat or Crust (B4)
- ___ Iron Deposits (B5)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Sparsely Vegetated Concave Surface (B8)
- ___ Water-Stained Leaves (B9)
- ___ Aquatic Fauna (B13)
- ___ Marl Deposits (B15)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres on Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ___ Surface Soil Cracks (B6)
- ___ Drainage Patterns (B10)
- ___ Moss Trim Lines (B16)
- ___ Dry-Season Water Table (C2)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Stunted or Stressed Plants (D1)
- ___ Geomorphic Position (D2)
- ___ Shallow Aquitard (D3)
- ___ Microtopographic Relief (D4)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present?	Yes _____	No X	Depth (inches): _____
Water Table Present?	Yes _____	No X	Depth (inches): _____
Saturation Present? (includes capillary fringe)	Yes _____	No X	Depth (inches): _____

Wetland Hydrology Present? Yes _____ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Unseasonably wet.

Only available upland w/in project limits was a road shoulder.

VEGETATION – Use scientific names of plants.

Sampling Point: _____

Tree Stratum (Plot size: 15')	Absolute % Cover	Dominant Species?	Indicator Status
1. Prunus serotina	20	✓	FACU
2. Ulmus americana	5	✓	FACW
3.			
4.			
5.			
6.			
7.			
	25 = Total Cover		12.5

Sapling/Shrub Stratum (Plot size: 15')			
1. Rhus typhina	25	✓	UPL
2.			
3.			
4.			
5.			
6.			
7.			
	25 = Total Cover		

Herb Stratum (Plot size: 5')			
1. [illegible]	90		
2. Unknown grass	90	✓	
3. Solidago spp	25		
4. Parthenocissus quinquefolia	20		FACU
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			
	135 = Total Cover		

Woody Vine Stratum (Plot size: _____)			
1.			
2.			
3.			
4.			
	_____ = Total Cover		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across All Strata: 3 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 33% (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species _____	x 1 = _____
FACW species _____	x 2 = _____
FAC species _____	x 3 = _____
FACU species _____	x 4 = _____
UPL species _____	x 5 = _____
Column Totals: _____ (A)	_____ (B)

Prevalence Index = B/A = _____

Hydrophytic Vegetation Indicators:

___ 1 - Rapid Test for Hydrophytic Vegetation

___ 2 - Dominance Test is >50%

___ 3 - Prevalence Index is ≤3.0[1]

___ 4 - Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

___ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Vegetation Strata:

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Sapling/shrub – Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vines – All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? Yes _____ No X

Remarks: (Include photo numbers here or on a separate sheet.)

SOIL

Sampling Point: _____

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-14	10YR 2/2						SL	Fill/Gravel
14-24+	10YR 3/4						FSL	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

[2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Dark Surface (S7) **(LRR R, MLRA 149B)**
- ___ Polyvalue Below Surface (S8) **(LRR R, MLRA 149B)**
- ___ Thin Dark Surface (S9) **(LRR R, MLRA 149B)**
- ___ Loamy Mucky Mineral (F1) **(LRR K, L)**
- ___ Loamy Gleyed Matrix (F2)
- ___ Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ___ 2 cm Muck (A10) **(LRR K, L, MLRA 149B)**
- ___ Coast Prairie Redox (A16) **(LRR K, L, R)**
- ___ 5 cm Mucky Peat or Peat (S3) **(LRR K, L, R)**
- ___ Dark Surface (S7) **(LRR K, L)**
- ___ Polyvalue Below Surface (S8) **(LRR K, L)**
- ___ Thin Dark Surface (S9) **(LRR K, L)**
- ___ Iron-Manganese Masses (F12) **(LRR K, L, R)**
- ___ Piedmont Floodplain Soils (F19) **(MLRA 149B)**
- ___ Mesic Spodic (TA6) **(MLRA 144A, 145, 149B)**
- ___ Red Parent Material (F21)
- ___ Very Shallow Dark Surface (TF12)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes _____ No X

Remarks:

Charlestown 43565 Wetland Application Photos Taken 8/10/2021

Palustrine Forested Wetland and Roadway Toe of Slope

Northern section of palustrine forested wetland (right of photo) where impacts are proposed, looking south

Northern section of palustrine forested wetland (right of photo) where impacts are proposed, looking south

Charlestown 43565 Wetland Application Photos Taken 8/10/2021

Central section of palustrine forested wetland (right of photo) where impacts are proposed, looking south

Central section of palustrine forested wetland where impacts are proposed

Charlestown 43565 Wetland Application Photos Taken 8/10/2021

Central section of palustrine forested wetland where impacts are proposed

Palustrine forested wetland (right of photo) where impacts are proposed, looking south

Charlestown 43565 Wetland Application Photos Taken 8/10/2021

Palustrine forested wetland (right of photo) where impacts are proposed, looking south

Palustrine forested wetland

Charlestown 43565 Wetland Application Photos Taken 8/10/2021

Southern portion of palustrine forested wetland (right of photo) where impacts are proposed, looking south

Drainage pipe outlet- pipe to be replaced by the project Sta 3 +75, impact area C

Charlestown 43565 Wetland Application Photos Taken 8/10/2021

Southern portion of the Palustrine Forested wetland (right of photo) looking south

From Roadway looking downslope towards Palustrine Forested wetland

Wetland Permit Application Attachment – Construction Sequence & Water Diversion
Charlestown
43565

Advertising Date: 09/09/2021

Begin Construction: 09/23/2021

Construction duration from September 2021 through November 2021. Due to the short project timeframe, construction activity durations not provided.

- Flag or fence clearing and grubbing limits, clearly distinguish areas for clearing (no grubbing).
- Install all necessary perimeter controls at the construction limits, including areas of disturbance, clearing, etc., for all work areas prior to any clearing and/or earthwork activities.
- Update signing for existing detour as needed
- Excavate roadway material (pavement and concrete slab)
- Evaluate condition of existing cross pipes and replace in kind, if warranted. Install underdrain system ditch line work as shown on plan.
- Excavate unsuitable material to limits shown on plan, while concurrently progressing slope stability treatment. Additional depth may be required based on field conditions. All work in jurisdictional areas will be within impact areas shown on the wetland plans.
- Begin placing geogrid and granular backfill to subgrade. Slope work to progress concurrently with backfill. Stabilize in accordance with erosion control guidance.
- Place roadway select material and pavement.
- Install all final stabilization
- Install guardrail, striping and cleanup
- Open road

Project Completion: November 2021

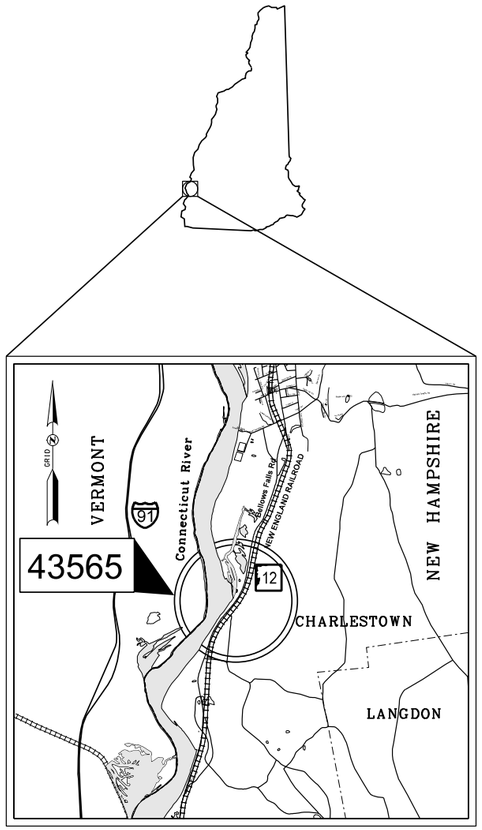
Water Diversion

In the typical condition, the project area drainage pipes that carry water under the roadway are dry with no streams in the project area. The plan is to accomplish as much of the work as possible during dry conditions. There are 3 existing drainage pipe replacements and one additional drainage pipe installation proposed to carry water from the east side of the project to the west side of the project area. To best manage any groundwater coming into the project area, the ditch line reconstruction and underdrain construction on the east side of the roadway would be completed first to manage any water coming into the project area. The drainage pipes will carry the water across the project area. As the drainage pipes are replaced and installed, they will continue to move any water that enters the project area. In case there are unexpected conditions leading to more water than is anticipated, a sediment basin has been proposed and is shown on the erosion control plans. If there is a storm event that leads to more water than expected, the water would be pumped to the sediment basin. However, the sediment basin is not expected to be needed.

STATE OF NEW HAMPSHIRE
DEPARTMENT OF TRANSPORTATION

WETLANDS PLANS
FEDERAL AID PROJECT

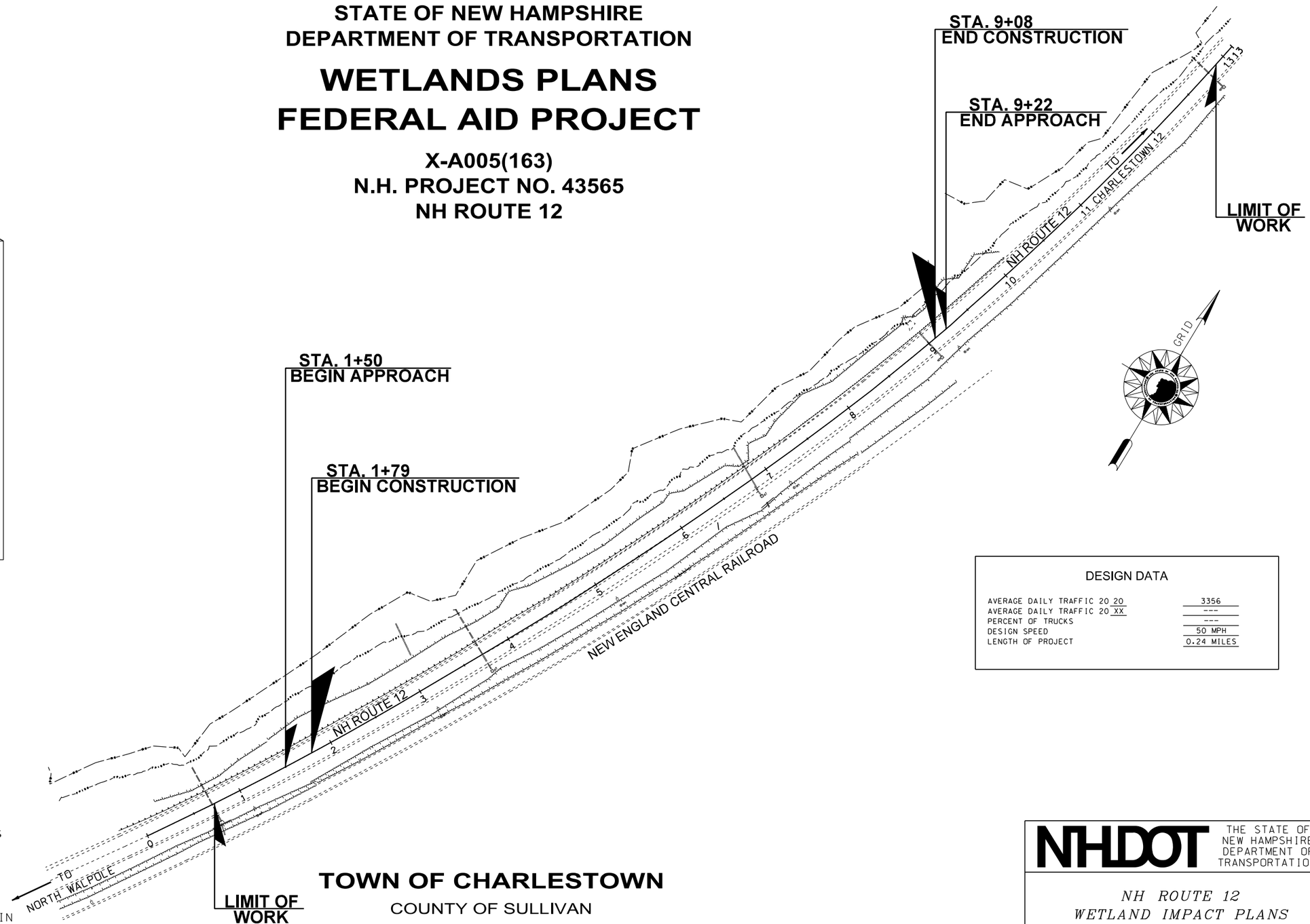
X-A005(163)
N.H. PROJECT NO. 43565
NH ROUTE 12



LOCATION MAP

1 1/2 0 1 2 mi.

GRAPHIC SCALE



DESIGN DATA

AVERAGE DAILY TRAFFIC 20 20	3356
AVERAGE DAILY TRAFFIC 20 XX	---
PERCENT OF TRUCKS	---
DESIGN SPEED	50 MPH
LENGTH OF PROJECT	0.24 MILES

INDEX OF SHEETS

WETLANDS DELINEATED BY REBECCA MARTIN AND MATT URBAN OF THE NHDOT ON 8/10/2021
DATA PLOT VERIFIED BY DEIDRA BENJAMIN (CWS) ON 8/20/2021

TOWN OF CHARLESTOWN

COUNTY OF SULLIVAN

SCALE: 1" = 50'

FOR CONSTRUCTION AND ALIGNMENT DETAILS - SEE CONSTRUCTION PLANS

NHDOT
THE STATE OF NEW HAMPSHIRE DEPARTMENT OF TRANSPORTATION

NH ROUTE 12
WETLAND IMPACT PLANS
TOWN OF CHARLESTOWN
08-30-2021

DRAWN BY	HSW	DATE	8/26/21
CHECKED BY	TOD	DATE	8/26/21

DRAWING NAME	FEDERAL PROJECT NO.	STATE PROJECT NO.	SHEET NO.	TOTAL SHEETS
43565fsw	X-A005(163)	43565	1	11

GENERAL

EDGE OF PAVEMENT — PROPOSED ROADWAY
TRAVELED WAY — existing roadway — (pavement removed outside slope lines)

DRIVEWAYS — (label surface type)

BUILDINGS — (building to be removed)
(label house or type of building)

FOUNDATION — (label type)

LEACH FIELD — leach field

BRIDGE CROSSINGS — STREAM — OVERPASS

STEPS AND WALK — (label type)

INTERMITTENT WATER COURSE

SHORE LINE — river/stream — pond — (label name of water body)

POTENTIAL WET AREA SYMBOL

BRUSH OR WOODS LINE

TREES (PLANS) — (deciduous) (coniferous) (stump)

TREE OR STUMP (CROSS-SECTIONS) — (show station, circumference in feet & type)

HEDGE — (label type)

MONITORING WELL — mon W

WELL — W

FLAG POLE — fp

ORIGINAL GROUND (TYPICALS)

ROCK OUTCROP

ROCK LINE (TYPICALS & SECTIONS ONLY)

GUARDRAIL (label type) — existing — PROPOSED — bgr — cgr

JERSEY BARRIER

CURB (LABEL TYPE)

STONE WALL

RETAINING WALL (LABEL TYPE) — (points toward retained ground)

FENCE (LABEL TYPE)

SIGNS — (single post) — (double post)

GAS PUMP — gp

FUEL TANK (ABOVE GROUND) — ft (label size & type)

STORAGE TANK FILLER CAP — fc

SEPTIC TANK — S

GRAVE — gr

MAILBOX — mb

VENT PIPE — vp

SATELLITE DISH ANTENNA — da

PHONE — ph

GROUND LIGHT/LAMP POST — gl — lp

BORING LOCATION — B

TEST PIT — TP

INTERSTATE NUMBERED HIGHWAY — 293

UNITED STATES NUMBERED HIGHWAY — 3

STATE NUMBERED HIGHWAY — 102

SHORELAND - WETLAND

WETLAND DESIGNATION AND TYPE — 2 PUB2E

DELINEATED WETLAND — DW
ORDINARY HIGH WATER — OHW
TOP OF BANK — TOB
TOP OF BANK & ORDINARY HIGH WATER — TOBOHW
NORMAL HIGH WATER — NHW
WIDTH AT BANK FULL — WBF
PRIME WETLAND — PWET
PRIME WETLAND 100' BUFFER — PWET100
NON-JURISDICTIONAL DRAINAGE AREA — NJDA
COWARDIN DISTINCTION LINE — CDL
TIDAL BUFFER ZONE — TBZ
DEVELOPED TIDAL BUFFER ZONE — DTBZ
HIGHEST OBSERVABLE TIDE LINE — HOTL
MEAN HIGH WATER — MHW
MEAN LOW WATER — MLW
VERNAL POOL — VP
SPECIAL AQUATIC SITE — SAS
REFERENCE LINE — REF
WATER FRONT BUFFER — WB50
NATURAL WOODLAND BUFFER — NWB150
PROTECTED SHORELAND — PS250
INVASIVE SPECIES LABEL — I.S. I — I.S. II
INVASIVE SPECIES — INV

FLOODPLAIN / FLOODWAY

500 YEAR FLOODPLAIN BOUNDARY — FP500
100 YEAR FLOODPLAIN BOUNDARY — FP100
FLOODWAY — FW

ENGINEERING

CONSTRUCTION BASELINE — 30 — 31 — 32

PC. PT. POT (ON CONST BASELINE)

PI (IN CONSTRUCTION BASELINES)

INTERSECTION OR EQUATION OF TWO LINES

ORIGINAL GROUND LINE (PROFILES AND CROSS-SECTIONS)

PROFILE GRADE LINE (PROFILES AND CROSS-SECTIONS)

CLEARING LINE — SLOPE LINE

SLOPE LINE

SLOPE LINE (FILL)

SLOPE LINE (CUT)

PROFILES AND CROSS SECTIONS:
ORIGINAL GROUND ELEVATION (LEFT) — 72.5
FINISHED GRADE ELEVATION (RIGHT) — 79.14

STATE OF NEW HAMPSHIRE
CHARLESTOWN
DEPARTMENT OF TRANSPORTATION ∘ BUREAU OF HIGHWAY DESIGN

STANDARD SYMBOLS

REVISION DATE	DGN	STATE PROJECT NO.	SHEET NO.	TOTAL SHEETS
11-21-2014	43565stdsymb1-2	43565	2	11

DRAINAGE

MANHOLE

CATCH BASIN — cb

DROP INLET — di

(existing) (PROPOSED)

DRAINAGE PIPE (existing) (label size & type)

DRAINAGE PIPE (PROPOSED)

UNDERDRAIN (existing) W/ FLUSHING BASIN — fb (label size & type)

UNDERDRAIN (PROPOSED) W/ FLUSHING BASIN

show direction of flow

HEADER (existing & PROPOSED) (with stone outlet protection)

METAL or PLASTIC

END SECTION (existing & PROPOSED)

RCP

OPEN DITCH (PROPOSED)

EROSION CONTROL/ STONE SLOPE PROTECTION

BOUNDARIES / RIGHT-OF-WAY

RIGHT-OF-WAY LINE (label type)

RR RIGHT-OF-WAY LINE

PROPERTY LINE

PROPERTY LINE (COMMON OWNER) — Z — Z

TOWN LINE — BOW / CONCORD

COUNTY LINE — COOS / GRAFTON

STATE LINE — MAINE / NEW HAMPSHIRE

NATIONAL FOREST

CONSERVATION LAND — LC — LC

BENCH MARK / SURVEY DISK

BOUND — bnd (PROPOSED)

STATE LINE/ TOWN LINE MONUMENT — S/L T/L

NHDOT PROJECT MARKER

IRON PIPE OR PIN — ip

DRILL HOLE IN ROCK — dh

TAX MAP AND LOT NUMBER — 156 / 14 — 1642/341 — 6.80 Ac.±

PROPERTY PARCEL NUMBER — 12

HISTORIC PROPERTY — H

UTILITIES

existing PROPOSED

TELEPHONE POLE

POWER POLE

JOINT OCCUPANCY

MISCELLANEOUS/UNKNOWN POLE

GUY POLE OR PUSH BRACE

(plot point at face not center of symbol)

LIGHT POLE

LIGHT ON POWER POLE

LIGHT ON JOINT POLE

POLE STATUS:
REMOVE, LEAVE, PROPOSED, OR TEMPORARY
AS APPLICABLE e.g.:

R L P+04 25.0' T+04 25.0'

RAILROAD (label ownership)

RAILROAD SIGN

RAILROAD SIGNAL

UTILITY JUNCTION BOX — jb — JB

OVERHEAD WIRE — OW — OW (label type)

UNDERGROUND UTILITIES

WATER (on existing lines label size, type and note if abandoned) — W — W — PW — PW

SEWER — S — S — PS — PS

TELEPHONE — T — T — PT — PT

ELECTRIC — E — E — PE — PE

GAS — G — G — PG — PG

LIGHTING — L — L — PL — PL

INTELLIGENT TRANSPORTATION SYSTEM — ITS — ITS — PITS — PITS

FIBER OPTIC — FO — FO — PFO — PFO

WATER SHUT OFF — WSO — WS

GAS SHUT OFF — GSO — GS

HYDRANT — HYD — HYD

MANHOLES

SEWER — S — MHS

TELEPHONE — T — MHT

ELECTRICAL — E — MHE

GAS — G — MHG

UNKNOWN — U

TRAFFIC SIGNALS / ITS

existing PROPOSED

MAST ARM (existing) — 30' MA (NOTE ANGLE FROM ℄)

OPTICOM RECEIVER

OPTICOM STROBE

TRAFFIC SIGNAL

PEDESTAL WITH PEDESTRIAN SIGNAL HEADS AND PUSH BUTTON UNIT

SIGNAL CONDUIT — C — C — C — PC — PC — PC

CONTROLLER CABINET — cc — CC

METER PEDESTAL — mp — MP

PULL BOX — pb — PB

LOOP DETECTOR (QUADRUPOLE) (label size)

LOOP DETECTOR (RECTANGULAR) (label size)

CAMERA POLE (CCTV)

FIBER OPTIC DELINEATOR — fod — FOD

FIBER OPTIC SPLICE VAULT — SVF

ITS EQUIPMENT CABINET — its — ITS

VARIABLE SPEED LIMIT SIGN

DYNAMIC MESSAGE SIGN

ROAD AND WEATHER INFO SYSTEM

CONSTRUCTION NOTES

CURB MARK NUMBER - BITUMINOUS	B-1
CURB MARK NUMBER - GRANITE	G-1
CLEARING AND GRUBBING AREA	A
DRAINAGE NOTE	1
EROSION CONTROL NOTE	A
FENCING NOTE	A
GUARDRAIL NOTE	1
ITS NOTE	1
LIGHTING NOTE	A
TRAFFIC SIGNAL NOTE	1

SHEET 2 OF 2

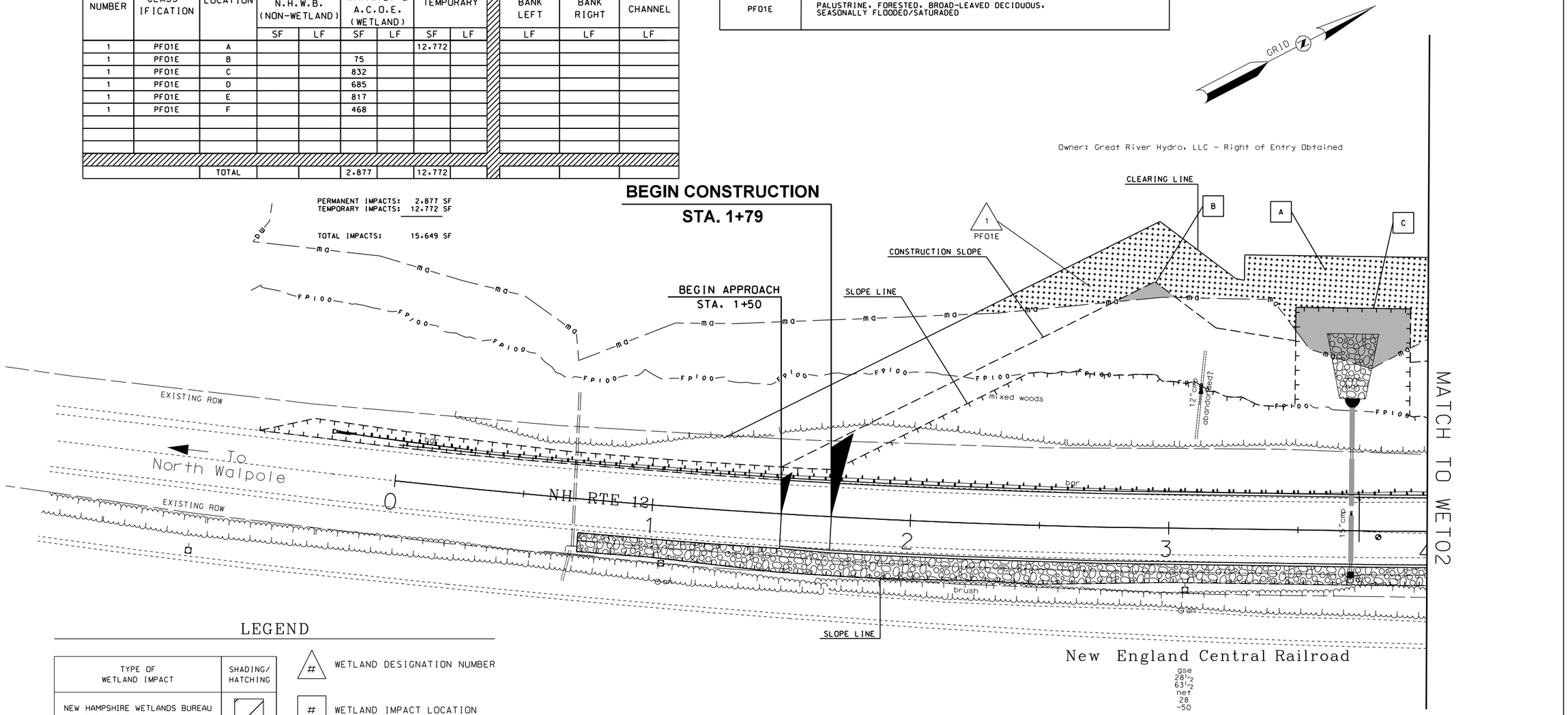
STATE OF NEW HAMPSHIRE
CHARLESTOWN
DEPARTMENT OF TRANSPORTATION ∘ BUREAU OF HIGHWAY DESIGN

STANDARD SYMBOLS

REVISION DATE	DGN	STATE PROJECT NO.	SHEET NO.	TOTAL SHEETS
9-1-2016	43565stdsymb1-2	43565	3	11

WETLAND IMPACT SUMMARY											
WETLAND NUMBER	WETLAND CLASS-IFICATION	LOCATION	AREA IMPACTS						LINEAR STREAM IMPACTS FOR MITIGATION		
			PERMANENT				TEMPORARY		PERMANENT		
			N.H.W.B. (NON-WETLAND)		N.H.W.B. & A.C.O.E. (WETLAND)				BANK LEFT	BANK RIGHT	CHANNEL
			SF	LF	SF	LF	SF	LF	LF	LF	LF
1	PF01E	A					12,772				
1	PF01E	B			75						
1	PF01E	C			832						
1	PF01E	D			685						
1	PF01E	E			817						
1	PF01E	F			468						
		TOTAL			2,877		12,772				

WETLAND CLASSIFICATION CODES	
PF01E	PALUSTRINE, FORESTED, BROAD-LEAVED DECIDUOUS, SEASONALLY FLOODED/SATURADED



LEGEND

TYPE OF WETLAND IMPACT	SHADING/ HATCHING
NEW HAMPSHIRE WETLANDS BUREAU (PERMANENT NON-WETLAND)	
NEW HAMPSHIRE WETLANDS BUREAU & ARMY CORP OF ENGINEERS (PERMANENT WETLAND)	
TEMPORARY IMPACTS	

- # — WETLAND DESIGNATION NUMBER
- # — WETLAND IMPACT LOCATION
- # — WETLAND MITIGATION AREA
- MITIGATION

REVISIONS AFTER PROPOSAL

NUMBER	DESCRIPTION	DATE	STATION

	NAME1	DATE	DATE1
SDR PROCESSED			
NEW DESIGN	HSW	DATE	8/26/2021
SHEET CHECKED	TOD	DATE	8/26/2021
AS BUILT DETAILS		DATE	

STATE OF NEW HAMPSHIRE
CHARLESTOWN
DEPARTMENT OF TRANSPORTATION ∘ BUREAU OF HIGHWAY DESIGN

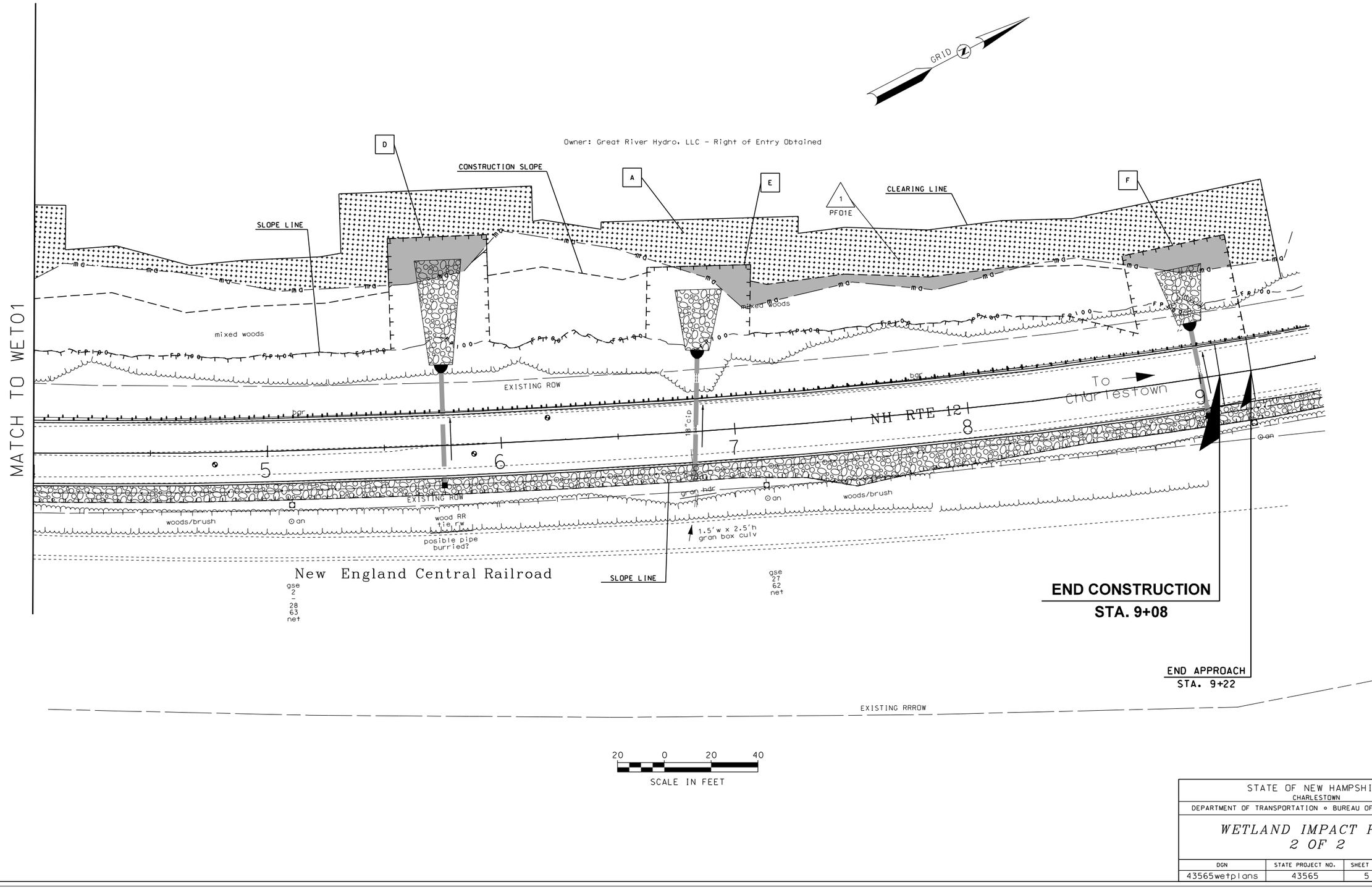
WETLAND IMPACT PLANS 1 OF 2

DGN	STATE PROJECT NO.	SHEET NO.	TOTAL SHEETS
43565wetplans	43565	4	11

REVISIONS AFTER PROPOSAL

NUMBER	DATE	DESCRIPTION	STATION

SDR PROCESSED	NAME1	DATE DATE1
NEW DESIGN	HSW	DATE 8/26/2021
SHEET CHECKED	TDD	DATE 8/26/2021
AS BUILT DETAILS		DATE



STATE OF NEW HAMPSHIRE
CHARLESTOWN
DEPARTMENT OF TRANSPORTATION ∘ BUREAU OF HIGHWAY DESIGN

WETLAND IMPACT PLANS
2 OF 2

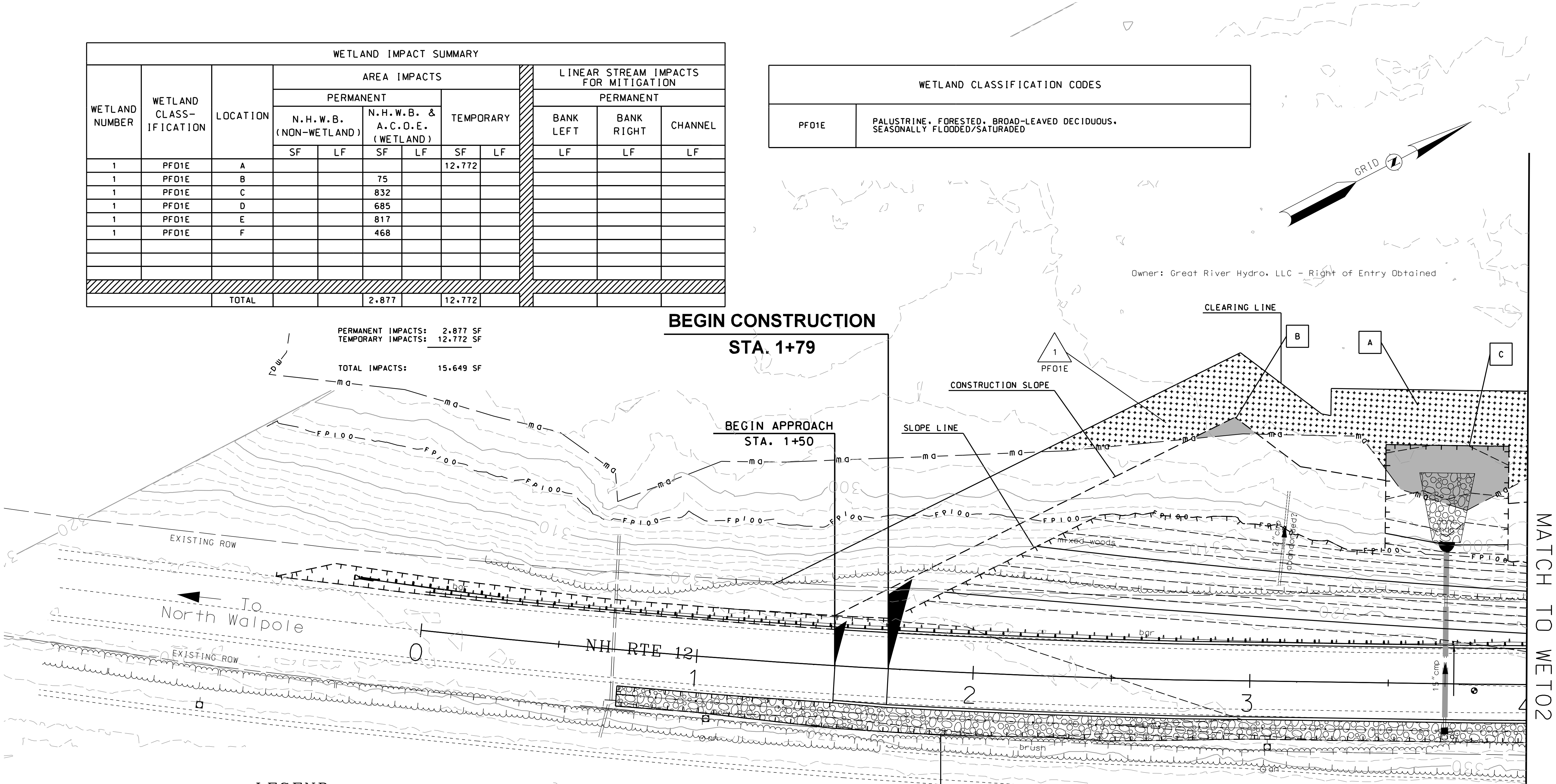
DGN	STATE PROJECT NO.	SHEET NO.	TOTAL SHEETS
43565wetplans	43565	5	11

WETLAND IMPACT SUMMARY											
WETLAND NUMBER	WETLAND CLASS-IFICATION	LOCATION	AREA IMPACTS						LINEAR STREAM IMPACTS FOR MITIGATION		
			PERMANENT				TEMPORARY		PERMANENT		
			N.H.W.B. (NON-WETLAND)		N.H.W.B. & A.C.O.E. (WETLAND)				BANK LEFT	BANK RIGHT	CHANNEL
			SF	LF	SF	LF	SF	LF	LF	LF	LF
1	PF01E	A					12,772				
1	PF01E	B			75						
1	PF01E	C			832						
1	PF01E	D			685						
1	PF01E	E			817						
1	PF01E	F			468						
		TOTAL			2,877		12,772				

PERMANENT IMPACTS: 2,877 SF
TEMPORARY IMPACTS: 12,772 SF

TOTAL IMPACTS: 15,649 SF

WETLAND CLASSIFICATION CODES	
PF01E	PALUSTRINE, FORESTED, BROAD-LEAVED DECIDUOUS, SEASONALLY FLOODED/SATURADED



LEGEND

TYPE OF WETLAND IMPACT	SHADING/ HATCHING
NEW HAMPSHIRE WETLANDS BUREAU (PERMANENT NON-WETLAND)	
NEW HAMPSHIRE WETLANDS BUREAU & ARMY CORP OF ENGINEERS (PERMANENT WETLAND)	
TEMPORARY IMPACTS	

\# WETLAND DESIGNATION NUMBER

\# WETLAND IMPACT LOCATION

\# WETLAND MITIGATION AREA

MITIGATION

20 0 20 40
SCALE IN FEET

REVISIONS AFTER PROPOSAL			
NUMBER	DATE	STATION	STATION	DESCRIPTION

SDR PROCESSED	NAME1	DATE DATE1
NEW DESIGN	HSW	DATE 8/26/2021
SHEET CHECKED	TDD	DATE 8/26/2021
AS BUILT DETAILS		DATE

STATE OF NEW HAMPSHIRE CHARLESTOWN			
DEPARTMENT OF TRANSPORTATION ∘ BUREAU OF HIGHWAY DESIGN			
WETLAND IMPACT PLANS WITH CONTOURS 1 OF 2			
DGN	STATE PROJECT NO.	SHEET NO.	TOTAL SHEETS
43565wetplans2	43565	6	11

REVISIONS AFTER PROPOSAL

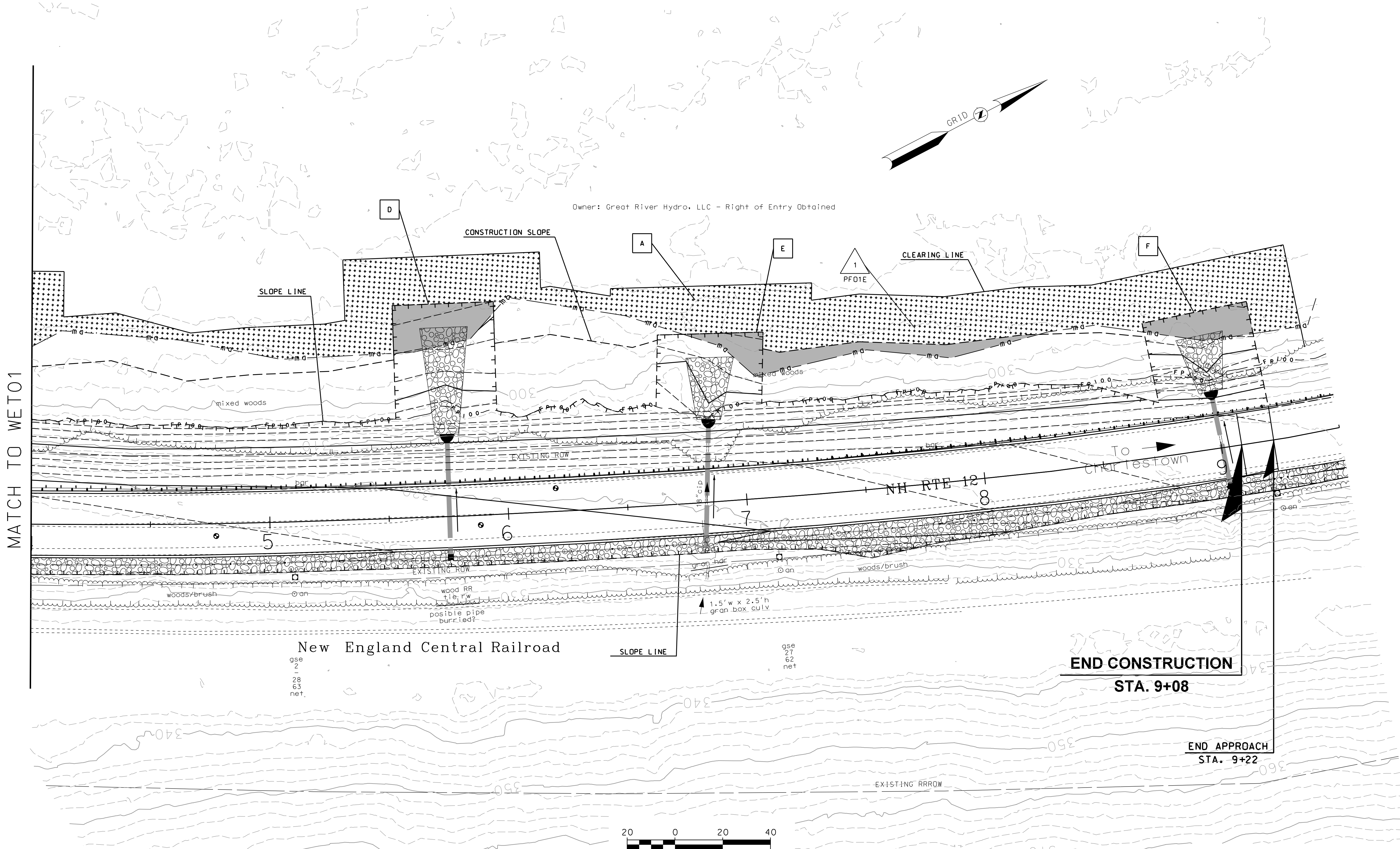
NUMBER	DATE	STATION	STATION	DESCRIPTION

SDR PROCESSED NAME1 DATE DATE1

NEW DESIGN HSW DATE 8/26/2021

SHEET CHECKED TDD DATE 8/26/2021

AS BUILT DETAILS DATE



MATCH TO WET01
GRID
Owner: Great River Hydro, LLC - Right of Entry Obtained
D
CONSTRUCTION SLOPE
A
E
1
PF01E
CLEARING LINE
F
SLOPE LINE
mixed woods
mixed woods
300
310
EXISTING ROW
bgr
To
Charlestown
NH RTE 12
5
6
7
8
9
18"cip
EXISTING ROW
woods/brush
woods/brush
wood RR
tie rw
posible pipe
burried?
gran hdr
1.5'w x 2.5'h
gran box culv
330
New England Central Railroad
SLOPE LINE
gse
2
28
63
net
gse
27
62
net
END CONSTRUCTION
STA. 9+08
340
350
END APPROACH
STA. 9+22
360
EXISTING RRROW
370
380
20 0 20 40
SCALE IN FEET

STATE OF NEW HAMPSHIRE
CHARLESTOWN

DEPARTMENT OF TRANSPORTATION ∘ BUREAU OF HIGHWAY DESIGN

WETLAND IMPACT PLANS
WITH CONTOURS
2 OF 2

DGN	STATE PROJECT NO.	SHEET NO.	TOTAL SHEETS
43565wetplans2	43565	7	11

EROSION CONTROL STRATEGIES

1. ENVIRONMENTAL COMMITMENTS:
   - 1.1. THESE GUIDELINES DO NOT RELIEVE THE CONTRACTOR FROM COMPLIANCE WITH ANY CONTRACT PROVISIONS, OR APPLICABLE FEDERAL, STATE, AND LOCAL REGULATIONS.
   - 1.2. THIS PROJECT WILL BE SUBJECT TO THE US EPA'S NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) STORM WATER CONSTRUCTION GENERAL PERMIT AS ADMINISTERED BY THE ENVIRONMENTAL PROTECTION AGENCY (EPA). THIS PROJECT IS SUBJECT TO REQUIREMENTS IN THE MOST RECENT CONSTRUCTION GENERAL PERMIT (CGP).
   - 1.3. THE CONTRACTOR'S ATTENTION IS DIRECTED TO THE NHDES WETLAND PERMIT, THE US ARMY CORPS OF ENGINEERS PERMIT, WATER QUALITY CERTIFICATION AND THE SPECIAL ATTENTION ITEMS INCLUDED IN THE CONTRACT DOCUMENTS.
   - 1.4. ALL STORM WATER, EROSION AND SEDIMENT CONTROL MEASURES SHALL BE INSTALLED AND MAINTAINED IN ACCORDANCE WITH THE NEW HAMPSHIRE STORMWATER MANUAL, VOLUME 3, EROSION AND SEDIMENT CONTROLS DURING CONSTRUCTION (DECEMBER 2008) (BMP MANUAL) AVAILABLE FROM THE NEW HAMPSHIRE DEPARTMENT OF ENVIRONMENTAL SERVICES (NHDES).
   - 1.5. THE CONTRACTOR SHALL COMPLY WITH RSA 485-A:17, AND ALL, PUBLISHED NHDES ALTERATION OF TERRAIN ENV-WQ 1500 REQUIREMENTS (HTTP://DES.NH.GOV/ORGANIZATION/COMMISSIONER/LEGAL/RULES/INDEX.HTM)
   - 1.6. THE CONTRACTOR IS DIRECTED TO REVIEW AND COMPLY WITH SECTION 107.1 OF THE CONTRACT AS IT REFERS TO SPILLAGE, AND ALSO WITH REGARDS TO EROSION, POLLUTION, AND TURBIDITY PRECAUTIONS.

2. STANDARD EROSION CONTROL SEQUENCING APPLICABLE TO ALL CONSTRUCTION PROJECTS:
   - 2.1. PERIMETER CONTROLS SHALL BE INSTALLED PRIOR TO EARTH DISTURBING ACTIVITIES. PERIMETER CONTROLS AND STABILIZED CONSTRUCTION EXITS SHALL BE INSTALLED AS SHOWN IN THE BMP MANUAL AND AS DIRECTED BY THE STORMWATER POLLUTION PREVENTION PLAN (SWPPP) PREPARER.
   - 2.2. EROSION, SEDIMENTATION CONTROL MEASURES AND INFILTRATION BASINS SHALL BE CLEANED, REPLACED AND AUGMENTED AS NECESSARY TO PREVENT SEDIMENTATION BEYOND PROJECT LIMITS THROUGHOUT THE PROJECT DURATION.
   - 2.3. EROSION AND SEDIMENT CONTROL MEASURES SHALL BE INSPECTED IN ACCORDANCE WITH THE CONSTRUCTION GENERAL PERMIT AND SECTION 645 OF THE NHDOT SPECIFICATIONS FOR ROAD AND BRIDGES CONSTRUCTION.
   - 2.4. AN AREA SHALL BE CONSIDERED STABLE IF ONE OF THE FOLLOWING HAS OCCURRED:
     - (A) BASE COURSE GRAVELS HAVE BEEN INSTALLED IN AREAS TO BE PAVED;
     - (B) A MINIMUM OF 85% VEGETATED GROWTH HAS BEEN ESTABLISHED;
     - (C) A MINIMUM OF 3" OF NON-EROSIVE MATERIAL SUCH AS STONE OR RIP-RAP HAS BEEN INSTALLED;
     - (D) TEMPORARY SLOPE STABILIZATION CONFORMING TO TABLE 1 HAS BEEN PROPERLY INSTALLED
   - 2.5. ALL STOCKPILES SHALL BE CONTAINED WITH A PERIMETER CONTROL. IF THE STOCKPILE IS TO REMAIN UNDISTURBED FOR MORE THAN 14 DAYS, MULCHING WILL BE REQUIRED.
   - 2.6. A WATER TRUCK SHALL BE AVAILABLE TO CONTROL EXCESSIVE DUST AT THE DIRECTION OF THE CONTRACT ADMINISTRATOR.
   - 2.7. TEMPORARY EROSION AND SEDIMENTATION CONTROL MEASURES SHALL REMAIN UNTIL THE AREA HAS BEEN PERMANENTLY STABILIZED.
   - 2.8. CONSTRUCTION PERFORMED ANY TIME BETWEEN NOVEMBER 30" AND MAY 1" OF ANY YEAR SHALL BE CONSIDERED WINTER CONSTRUCTION AND SHALL CONFORM TO THE FOLLOWING REQUIREMENTS.
     - (A) ALL PROPOSED VEGETATED AREAS WHICH DO NOT EXHIBIT A MINIMUM OF 85% VEGETATIVE GROWTH BY OCTOBER 15", OR WHICH ARE DISTURBED AFTER OCTOBER 15", SHALL BE STABILIZED IN ACCORDANCE WITH TABLE 1.
     - (B) ALL DITCHES OR SWALES WHICH DO NOT EXHIBIT A MINIMUM OF 85% VEGETATIVE GROWTH BY OCTOBER 15", OR WHICH ARE DISTURBED AFTER OCTOBER 15", SHALL BE STABILIZED TEMPORARILY WITH STONE OR IN ACCORDANCE WITH TABLE 1.
     - (C) AFTER NOVEMBER 30" INCOMPLETE ROAD SURFACES, WHERE WORK HAS STOPPED FOR THE SEASON, SHALL BE PROTECTED IN ACCORDANCE WITH TABLE 1.
     - (D) WINTER EXCAVATION AND EARTHWORK SHALL BE DONE SUCH THAT NO MORE THAN 1 ACRE OF THE PROJECT IS WITHOUT STABILIZATION AT ONE TIME, UNLESS A WINTER CONSTRUCTION PLAN HAS BEEN APPROVED BY NHDOT THAT MEETS THE REQUIREMENTS OF ENV-WQ 1505.02 AND ENV-WQ 1505.05.
     - (E) A SWPPP AMENDMENT SHALL BE SUBMITTED TO THE DEPARTMENT, FOR APPROVAL, ADDRESSING COLD WEATHER STABILIZATION (ENV-WQ 1505.05) AND INCLUDING THE REQUIREMENTS OF NO LESS THAN 30 DAYS PRIOR TO THE COMMENCEMENT OF WORK SCHEDULED AFTER NOVEMBER 30".

GENERAL CONSTRUCTION PLANNING AND SELECTION OF STRATEGIES TO CONTROL EROSION AND SEDIMENT ON HIGHWAY CONSTRUCTION PROJECTS

3. PLAN ACTIVITIES TO ACCOUNT FOR SENSITIVE SITE CONDITIONS:
   - 3.1. CLEARLY FLAG AREAS TO BE PROTECTED IN THE FIELD AND PROVIDE CONSTRUCTION BARRIERS TO PREVENT TRAFFICKING OUTSIDE OF WORK AREAS.
   - 3.2. CONSTRUCTION SHALL BE SEQUENCED TO LIMIT THE DURATION AND AREA OF EXPOSED SOILS.
   - 3.3. PROTECT AND MAXIMIZE EXISTING NATIVE VEGETATION AND NATURAL FOREST BUFFERS BETWEEN CONSTRUCTION ACTIVITY AND SENSITIVE AREAS.
   - 3.4. WHEN WORK IS PERFORMED IN AND NEAR WATER COURSES, STREAM FLOW DIVERSION METHODS SHALL BE IMPLEMENTED PRIOR TO ANY EXCAVATION OR FILLING.
   - 3.5. WHEN WORK IS PERFORMED WITHIN 50 FEET OF SURFACE WATERS (WETLAND, OPEN WATER OR FLOWING WATER), PERIMETER CONTROL SHALL BE ENHANCED CONSISTENT WITH SECTION 2.1.2.1. OF THE 2012 NPDES CONSTRUCTION GENERAL PERMIT.

4. MINIMIZE THE AMOUNT OF EXPOSED SOIL:
   - 4.1. CONSTRUCTION SHALL BE SEQUENCED TO LIMIT THE DURATION AND AREA OF EXPOSED SOILS. MINIMIZE THE AREA OF EXPOSED SOIL AT ANY ONE TIME. PHASING SHALL BE USED TO REDUCE THE AMOUNT AND DURATION OF SOIL EXPOSED TO THE ELEMENTS AND VEHICLE TRACKING.
   - 4.2. UTILIZE TEMPORARY MULCHING OR PROVIDE ALTERNATE TEMPORARY STABILIZATION ON EXPOSED SOILS IN ACCORDANCE WITH TABLE 1.
   - 4.3. THE MAXIMUM AMOUNT OF DISTURBED EARTH SHALL NOT EXCEED A TOTAL OF 5 ACRES FROM MAY 1" THROUGH NOVEMBER 30", OR EXCEED ONE ACRE DURING WINTER MONTHS, UNLESS THE CONTRACTOR DEMONSTRATES TO THE DEPARTMENT THAT THE ADDITIONAL AREA OF DISTURBANCE IS NECESSARY TO MEET THE CONTRACTORS CRITICAL PATH METHOD SCHEDULE (CPM), AND THE CONTRACTOR HAS ADEQUATE RESOURCES AVAILABLE TO ENSURE THAT ENVIRONMENTAL COMMITMENTS WILL BE MET.

5. CONTROL STORMWATER FLOWING ONTO AND THROUGH THE PROJECT:
   - 5.1. DIVERT OFF SITE RUNOFF OR CLEAN WATER AWAY FROM THE CONSTRUCTION ACTIVITY TO REDUCE THE VOLUME THAT NEEDS TO BE TREATED ON SITE.
   - 5.2. DIVERT STORM RUNOFF FROM UPSLOPE DRAINAGE AREAS AWAY FROM DISTURBED AREAS, SLOPES, AND AROUND ACTIVE WORK AREAS AND TO A STABILIZED OUTLET LOCATION.
   - 5.3. CONSTRUCT IMPERMEABLE BARRIERS AS NECESSARY TO COLLECT OR DIVERT CONCENTRATED FLOWS FROM WORK OR DISTURBED AREAS.
   - 5.4. STABILIZE, TO APPROPRIATE ANTICIPATED VELOCITIES, CONVEYANCE CHANNELS OR PUMPING SYSTEMS NEEDED TO CONVEY CONSTRUCTION STORMWATER TO BASINS AND DISCHARGE LOCATIONS PRIOR TO USE.
   - 5.5. DIVERT OFF-SITE WATER THROUGH THE PROJECT IN AN APPROPRIATE MANNER SO NOT TO DISTURB THE UPSTREAM OR DOWNSTREAM SOILS, VEGETATION OR HYDROLOGY BEYOND THE PERMITTED AREA.

6. PROTECT SLOPES:
   - 6.1. INTERCEPT AND DIVERT STORM RUNOFF FROM UPSLOPE DRAINAGE AREAS AWAY FROM UNPROTECTED AND NEWLY ESTABLISHED AREAS AND SLOPES TO A STABILIZED OUTLET OR CONVEYANCE.
   - 6.2. CONSIDER HOW GROUNDWATER SEEPAGE ON CUT SLOPES MAY IMPACT SLOPE STABILITY AND INCORPORATE APPROPRIATE MEASURES TO MINIMIZE EROSION.
   - 6.3. CONVEY STORMWATER DOWN THE SLOPE IN A STABILIZED CHANNEL OR SLOPE DRAIN.
   - 6.4. THE OUTER FACE OF THE FILL SLOPE SHOULD BE IN A LOOSE RUFFLED CONDITION PRIOR TO TURF ESTABLISHMENT. TOPSOIL OR HUMUS LAYERS SHALL BE TRACKED UP AND DOWN THE SLOPE, DISKED, HARROWED, DRAGGED WITH A CHAIN OR MAT, MACHINE-RAKED, OR HAND-WORKED TO PRODUCE A RUFFLED SURFACE.

7. ESTABLISH STABILIZED CONSTRUCTION EXITS:
   - 7.1. INSTALL AND MAINTAIN CONSTRUCTION EXITS, ANYWHERE TRAFFIC LEAVES A CONSTRUCTION SITE ONTO A PUBLIC RIGHT-OF-WAY.
   - 7.2. SWEEP ALL CONSTRUCTION RELATED DEBRIS AND SOIL FROM THE ADJACENT PAVED ROADWAYS AS NECESSARY.

8. PROTECT STORM DRAIN INLETS:
   - 8.1. DIVERT SEDIMENT LADEN WATER AWAY FROM INLET STRUCTURES TO THE EXTENT POSSIBLE.
   - 8.2. INSTALL SEDIMENT BARRIERS AND SEDIMENT TRAPS AT INLETS TO PREVENT SEDIMENT FROM ENTERING THE DRAINAGE SYSTEM.
   - 8.3. CLEAN CATCH BASINS, DRAINAGE PIPES, AND CULVERTS IF SIGNIFICANT SEDIMENT IS DEPOSITED.
   - 8.4. DROP INLET SEDIMENT BARRIERS SHOULD NEVER BE USED AS THE PRIMARY MEANS OF SEDIMENT CONTROL AND SHOULD ONLY BE USED TO PROVIDE AN ADDITIONAL LEVEL OF PROTECTION TO STRUCTURES AND DOWN-GRADIENT SENSITIVE RECEPTORS.

9. SOIL STABILIZATION:
   - 9.1. WITHIN THREE DAYS OF THE LAST ACTIVITY IN AN AREA, ALL EXPOSED SOIL AREAS, WHERE CONSTRUCTION ACTIVITIES ARE COMPLETE, SHALL BE STABILIZED.
   - 9.2. IN ALL AREAS, TEMPORARY SOIL STABILIZATION MEASURES SHALL BE APPLIED IN ACCORDANCE WITH THE STABILIZATION REQUIREMENTS (SECTION 2.2) OF THE 2012 CGP. (SEE TABLE 1 FOR GUIDANCE ON THE SELECTION OF TEMPORARY SOIL STABILIZATION MEASURES.)
   - 9.3. EROSION CONTROL SEED MIX SHALL BE SOWN IN ALL INACTIVE CONSTRUCTION AREAS THAT WILL NOT BE PERMANENTLY SEEDED WITHIN TWO WEEKS OF DISTURBANCE AND PRIOR TO SEPTEMBER 15, OF ANY GIVEN YEAR. IN ORDER TO ACHIEVE VEGETATIVE STABILIZATION PRIOR TO THE END OF THE GROWING SEASON.
   - 9.4. SOIL TACKIFIERS MAY BE APPLIED IN ACCORDANCE WITH THE MANUFACTURER'S SPECIFICATIONS AND REAPPLIED AS NECESSARY TO MINIMIZE SOIL AND MULCH LOSS UNTIL PERMANENT VEGETATION IS ESTABLISHED.

10. RETAIN SEDIMENT ON-SITE AND CONTROL DEWATERING PRACTICES:
    - 10.1. TEMPORARY SEDIMENT BASINS (CGP-SECTION 2.1.3.2) OR SEDIMENT TRAPS (ENV-WQ 1506.10) SHALL BE SIZED TO RETAIN, ON SITE, THE VOLUME OF A 2-YEAR 24-HOUR STORM EVENT FOR ANY AREA OF DISTURBANCE OR 3,600 CUBIC FEET OF STORMWATER RUNOFF PER ACRE OF DISTURBANCE, WHICHEVER IS GREATER. TEMPORARY SEDIMENT BASINS USED TO TREAT STORMWATER RUNOFF FROM AREAS GREATER THAN 5-ACRES OF DISTURBANCE SHALL BE SIZED TO ALSO CONTROL STORMWATER RUNOFF FROM A 10-YEAR 24 HOUR STORM EVENT. ON-SITE RETENTION OF THE 10-YEAR 24-HOUR EVENT IS NOT REQUIRED.
    - 10.2. CONSTRUCT AND STABILIZE DEWATERING INFILTRATION BASINS PRIOR TO ANY EXCAVATION THAT MAY REQUIRE DEWATERING.
    - 10.3. TEMPORARY SEDIMENT BASINS OR TRAPS SHALL BE PLACED AND STABILIZED AT LOCATIONS WHERE CONCENTRATED FLOW (CHANNELS AND PIPES) DISCHARGE TO THE SURROUNDING ENVIRONMENT FROM AREAS OF UNSTABILIZED EARTH DISTURBING ACTIVITIES.

11. ADDITIONAL EROSION AND SEDIMENT CONTROL GENERAL PRACTICES:
    - 11.1. USE TEMPORARY MULCHING, PERMANENT MULCHING, TEMPORARY VEGETATIVE COVER, AND PERMANENT VEGETATIVE COVER TO REDUCE THE NEED FOR DUST CONTROL. USE MECHANICAL SWEEPERS ON PAVED SURFACES WHERE NECESSARY TO PREVENT DUST BUILDUP. APPLY WATER, OR OTHER DUST INHIBITING AGENTS OR TACKIFIERS, AS APPROVED BY THE NHDES.
    - 11.2. ALL STOCKPILES SHALL BE CONTAINED WITH TEMPORARY PERIMETER CONTROLS. INACTIVE SOIL STOCKPILES SHOULD BE PROTECTED WITH SOIL STABILIZATION MEASURES (TEMPORARY EROSION CONTROL SEED MIX AND MULCH, SOIL BINDER) OR COVERED WITH ANCHORED TARPS.
    - 11.3. EROSION AND SEDIMENT CONTROL MEASURES WILL BE INSPECTED IN ACCORDANCE WITH SECTION 645 OF NHDOT SPECIFICATIONS, WEEKLY AND WITHIN 24 HOURS AFTER ANY STORM EVENT GREATER THAN 0.25 IN. OF RAIN PER 24-HOUR PERIOD. EROSION AND SEDIMENT CONTROL MEASURES WILL ALSO BE INSPECTED IN ACCORDANCE WITH THE GUIDANCE MEMO FROM THE NHDES CONTAINED WITHIN THE CONTRACT PROPOSAL AND THE EPA CONSTRUCTION GENERAL PERMIT.
    - 11.4. THE CONTRACTOR SHOULD UTILIZE STORM DRAIN INLET PROTECTION TO PREVENT SEDIMENT FROM ENTERING A STORM DRAINAGE SYSTEM PRIOR TO THE PERMANENT STABILIZATION OF THE CONTRIBUTING DISTURBED AREA.
    - 11.5. PERMANENT STABILIZATION MEASURES WILL BE CONSTRUCTED AND MAINTAINED IN LOCATIONS AS SHOWN ON THE CONSTRUCTION PLANS TO STABILIZE AREAS. VEGETATIVE STABILIZATION SHALL NOT BE CONSIDERED PERMANENTLY STABILIZED UNTIL VEGETATIVE GROWTH COVERS AT LEAST 85% OF THE DISTURBED AREA. THE CONTRACTOR SHALL BE RESPONSIBLE FOR EROSION AND SEDIMENT CONTROL FOR ONE YEAR AFTER PROJECT COMPLETION.
    - 11.6. CATCH BASINS: CARE SHALL BE TAKEN TO ENSURE THAT SEDIMENTS DO NOT ENTER ANY EXISTING CATCH BASINS DURING CONSTRUCTION. THE CONTRACTOR SHALL PLACE TEMPORARY STONE INLET PROTECTION OVER INLETS IN AREAS OF SOIL DISTURBANCE THAT ARE SUBJECT TO SEDIMENT CONTAMINATION.
    - 11.7. TEMPORARY AND PERMANENT DITCHES SHALL BE CONSTRUCTED, STABILIZED AND MAINTAINED IN A MANNER THAT WILL MINIMIZE SCOUR. TEMPORARY AND PERMANENT DITCHES SHALL BE DIRECTED TO DRAIN TO SEDIMENT BASINS OR STORM WATER COLLECTION AREAS.
    - 11.8. WINTER EXCAVATION AND EARTHWORK ACTIVITIES NEED TO BE LIMITED IN EXTENT AND DURATION, TO MINIMIZE POTENTIAL EROSION AND SEDIMENTATION IMPACTS. THE AREA OF EXPOSED SOIL SHALL BE LIMITED TO ONE ACRE, OR THAT WHICH CAN BE STABILIZED AT THE END OF EACH DAY UNLESS A WINTER CONSTRUCTION PLAN, DEVELOPED BY A QUALIFIED ENGINEER OR A CPESC SPECIALIST, IS REVIEWED AND APPROVED BY THE DEPARTMENT.
    - 11.9. CHANNEL PROTECTION MEASURES SHALL BE SUPPLEMENTED WITH PERIMETER CONTROL MEASURES WHEN THE DITCH LINES OCCUR AT THE BOTTOM OF LONG FILL SLOPES. THE PERIMETER CONTROLS SHALL BE INSTALLED ON THE FILL SLOPE TO MINIMIZE THE POTENTIAL FOR FILL SLOPE SEDIMENT DEPOSITS IN THE DITCH LINE.

BEST MANAGEMENT PRACTICES (BMP) BASED ON AMOUNT OF OPEN CONSTRUCTION AREA

12. STRATEGIES SPECIFIC TO OPEN AREAS LESS THAN 5 ACRES:
    - 12.1. THE CONTRACTOR SHALL COMPLY WITH RSA 485:A:17 AND ENV-WQ 1500: ALTERATION OF TERRAIN FOR CONSTRUCTION AND USE ALL CONVENTIONAL BMP STRATEGIES.
    - 12.2. SLOPES STEEPER THAN 3:1 WILL RECEIVE TURF ESTABLISHMENT WITH MATTING.
    - 12.3. SLOPES 3:1 OR FLATTER WILL RECEIVE TURF ESTABLISHMENT ALONE.
    - 12.4. AREAS WHERE HAUL ROADS ARE CONSTRUCTED AND STORMWATER CANNOT BE TREATED THE DEPARTMENT WILL CONSIDER INFILTRATION.
    - 12.5. FOR HAUL ROADS ADJACENT TO SENSITIVE ENVIRONMENTAL AREAS OR STEEPER THAN 5%, THE DEPARTMENT WILL CONSIDER USING EROSION STONE, CRUSHED GRAVEL, OR CRUSHED STONE BASE TO HELP MINIMIZE EROSION ISSUES.
    - 12.6. ALL AREAS THAT CAN BE STABILIZED SHALL BE STABILIZED PRIOR TO OPENING UP NEW TERRITORY.
    - 12.7. DETENTION BASINS SHALL BE DESIGNED AND CONSTRUCTED TO ACCOMMODATE A 2 YEAR STORM EVENT.

13. STRATEGIES SPECIFIC TO OPEN AREAS BETWEEN 5 AND 10 ACRES:
    - 13.1. THE CONTRACTOR SHALL COMPLY WITH RSA 485:A:17 AND ENV-WQ 1500 ALTERATION OF TERRAIN AND SHALL USE CONVENTIONAL BMP STRATEGIES AND ALL TREATMENT OPTIONS USED FOR UNDER 5 ACRES WILL BE UTILIZED.
    - 13.2. DETENTION BASINS WILL BE CONSTRUCTED TO ACCOMMODATE THE 2-YEAR 24-HOUR STORM EVENT AND CONTROL A 10-YEAR 24-HOUR STORM EVENT.
    - 13.3. SLOPES STEEPER THAN A 3:1 WILL RECEIVE TURF ESTABLISHMENT WITH MATTING OR OTHER TEMPORARY SOIL STABILIZATION MEASURES DETAILED IN TABLE 1. THE CONTRACTOR MAY ALSO CONSIDER A SOIL BINDER IN ACCORDANCE WITH THE NHDES APPROVALS OR REGULATIONS. OTHER ALTERNATIVE MEASURES, SUCH AS BONDED FIBER MATRIXES (BFMS) OR FLEXIBLE GROWTH MEDIUMS (FGMS) MAY BE UTILIZED, IF MEETING THE NHDES APPROVALS AND REGULATIONS.
    - 13.4. SLOPES 3:1 OR FLATTER WILL RECEIVE TURF ESTABLISHMENT OR OTHER TEMPORARY SOIL STABILIZATION MEASURES DETAILED IN TABLE 1. THE CONTRACTOR MAY ALSO CONSIDER A SOIL BINDER IN ACCORDANCE WITH THE NHDES APPROVALS OR REGULATIONS.

14. STRATEGIES SPECIFIC TO OPEN AREAS OVER 10 ACRES:
    - 14.1. THE CONTRACTOR SHALL COMPLY WITH RSA 485:A:17 AND ENV-WQ 1500 ALTERATION OF TERRAIN AND SHALL USE CONVENTIONAL BMP STRATEGIES AND ALL TREATMENT OPTIONS USED FOR UNDER 5 ACRES AND BETWEEN 5 AND 10 ACRES WILL BE UTILIZED.
    - 14.2. THE DEPARTMENT ANTICIPATES THAT SOIL BINDERS WILL BE NEEDED ON ALL SLOPES STEEPER THAN 3:1, IN ORDER TO MINIMIZE EROSION AND REDUCE THE AMOUNT OF SEDIMENT IN THE STORMWATER TREATMENT BASINS.
    - 14.3. THE CONTRACTOR WILL BE REQUIRED TO HAVE AN APPROVED DESIGN IN ACCORDANCE WITH ENV-WQ 1506.12 FOR AN ACTIVE FLOCCULANT TREATMENT SYSTEM TO TREAT AND RELEASE WATER CAPTURED IN STORM WATER BASINS. THE CONTRACTOR SHALL ALSO RETAIN THE SERVICES OF AN ENVIRONMENTAL CONSULTANT WHO HAS DEMONSTRATED EXPERIENCE IN THE DESIGN OF FLOCCULANT TREATMENT SYSTEMS. THE CONSULTANT WILL ALSO BE RESPONSIBLE FOR THE IMPLEMENTATION AND MONITORING OF THE SYSTEM.

TABLE 1

GUIDANCE ON SELECTING TEMPORARY SOIL STABILIZATION MEASURES

APPLICATION AREAS	DRY MULCH METHODS				HYDRAULICALLY APPLIED MULCHES[2]				ROLLED EROSION CONTROL BLANKETS[3]			
	HMT	WC	SG	CB	HM	SMM	BFM	FRM	SNSB	DNSB	DNSCB	DNCB
SLOPES[1]												
STEEPER THAN 2:1	NO	NO	YES	NO	NO	NO	NO	YES	NO	NO	NO	YES
2:1 SLOPE	YES*	YES*	YES	YES	NO	NO	YES	YES	NO	YES	YES	YES
3:1 SLOPE	YES	YES	YES	YES	NO	YES	YES	YES	YES	YES	YES	NO
4:1 SLOPE	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	NO	NO
WINTER STABILIZATION	4T/AC	YES	YES	YES	NO	NO	YES	YES	YES	YES	YES	YES
CHANNELS												
LOW FLOW CHANNELS	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	YES	YES
HIGH FLOW CHANNELS	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	NO	YES

ABBREV.	STABILIZATION MEASURE	ABBREV.	STABILIZATION MEASURE	ABBREV.	STABILIZATION MEASURE
HMT	HAY MULCH & TACK	HM	HYDRAULIC MULCH	SNSB	SINGLE NET STRAW BLANKET
WC	WOOD CHIPS	SMM	STABILIZED MULCH MATRIX	DNSB	DOUBLE NET STRAW BLANKET
SG	STUMP GRINDINGS	BFM	BONDED FIBER MATRIX	DNSCB	2 NET STRAW-COCONUT BLANKET
CB	COMPOST BLANKET	FRM	FIBER REINFORCED MEDIUM	DNCB	2 NET COCONUT BLANKET

NOTES:
1. ALL SLOPE STABILIZATION OPTIONS ASSUME A SLOPE LENGTH ≤10 TIMES THE HORIZONTAL DISTANCE COMPONENT OF THE SLOPE, IN FEET.
2. PRODUCTS CONTAINING POLYACRYLAMIDE (PAM) SHALL NOT BE APPLIED DIRECTLY TO OR WITHIN 100 FEET OF ANY SURFACE WATER WITHOUT PRIOR WRITTEN APPROVAL FROM THE NH DEPARTMENT OF ENVIRONMENTAL SERVICES.
3. ALL EROSION CONTROL BLANKETS SHALL BE MADE WITH WILDLIFE FRIENDLY BIODEGRADABLE NETTING.

STATE OF NEW HAMPSHIRE
CHARLESTOWN
DEPARTMENT OF TRANSPORTATION ∘ BUREAU OF HIGHWAY DESIGN

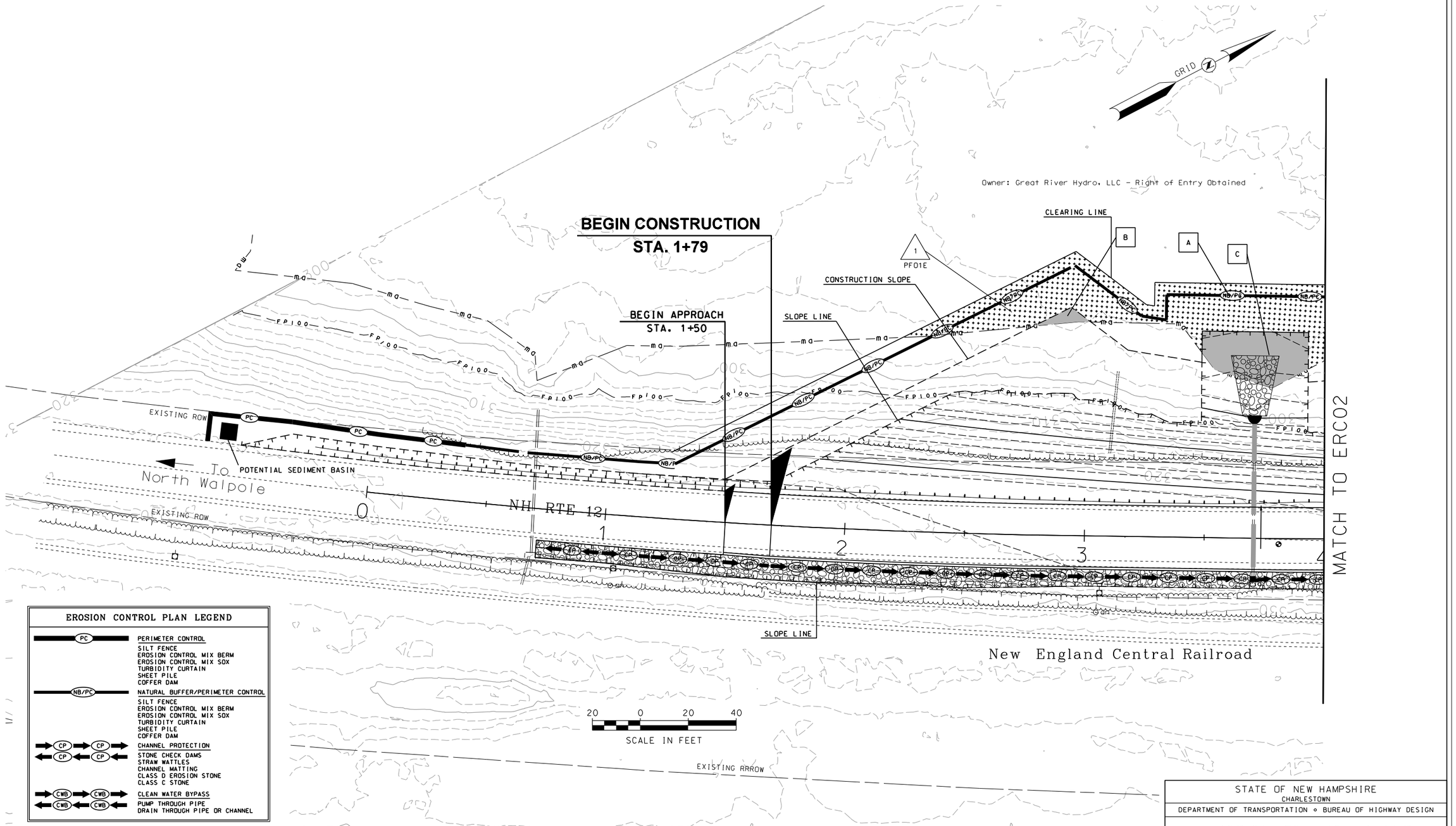
EROSION CONTROL STRATEGIES

REVISION DATE	DGN	STATE PROJECT NO.	SHEET NO.	TOTAL SHEETS
12-21-2015	erosstrat	43565	8	11

REVISIONS AFTER PROPOSAL

NUMBER	DATE	DESCRIPTION	STATION

	NAME	DATE
SDR PROCESSED	NAME1	DATE1
NEW DESIGN	TDD	8/26/2021
SHEET CHECKED	HSW	8/26/2021
AS BUILT DETAILS		DATE



EROSION CONTROL PLAN LEGEND

PC	PERIMETER CONTROL SILT FENCE EROSION CONTROL MIX BERM EROSION CONTROL MIX SOX TURBIDITY CURTAIN SHEET PILE COFFER DAM
NB/PC	NATURAL BUFFER/PERIMETER CONTROL SILT FENCE EROSION CONTROL MIX BERM EROSION CONTROL MIX SOX TURBIDITY CURTAIN SHEET PILE COFFER DAM
CP	CHANNEL PROTECTION STONE CHECK DAMS STRAW WATTLES CHANNEL MATTING CLASS D EROSION STONE CLASS C STONE
CWB	CLEAN WATER BYPASS PUMP THROUGH PIPE DRAIN THROUGH PIPE OR CHANNEL

STATE OF NEW HAMPSHIRE
CHARLESTOWN
DEPARTMENT OF TRANSPORTATION ∘ BUREAU OF HIGHWAY DESIGN

EROSION CONTROL PLANS 1 OF 3

DGN	STATE PROJECT NO.	SHEET NO.	TOTAL SHEETS
43565Eros_Cont	43565	9	11

Owner: Great River Hydro, LLC - Right of Entry Obtained

MATCH TO ERC01

MATCH TO ERC03

D

CONSTRUCTION SLOPE

A

E

1
PF01E

CLEARING LINE

F

SLOPE LINE

EXISTING ROW

NH RTE 12

New England Central Railroad

SLOPE LINE

END CONSTRUCTION
STA. 9+08

END APPROACH
STA. 9+22

EXISTING RRROW

20 0 20 40
SCALE IN FEET

REVISIONS AFTER PROPOSAL

NUMBER	DATE	DESCRIPTION	STATION

SDR PROCESSED	NAME1	DATE DATE1
NEW DESIGN	TDD	DATE 8/26/2021
SHEET CHECKED	HSW	DATE 8/26/2021
AS BUILT DETAILS		DATE

STATE OF NEW HAMPSHIRE
CHARLESTOWN
DEPARTMENT OF TRANSPORTATION ∘ BUREAU OF HIGHWAY DESIGN

EROSION CONTROL PLANS
2 OF 3

DGN	STATE PROJECT NO.	SHEET NO.	TOTAL SHEETS
43565Eros_Cont	43565	10	11

REVISIONS AFTER PROPOSAL

NUMBER	DATE	DESCRIPTION
		STATION
		STATION

SDR PROCESSED	NAME1	DATE DATE1
NEW DESIGN	TOD	DATE 8/26/2021
SHEET CHECKED	HSW	DATE 8/26/2021
AS BUILT DETAILS		DATE

MATCH TO ERC02

GRID

NH RTE 12

To Charlestown

1313

10 11 12

SLOPE LINE

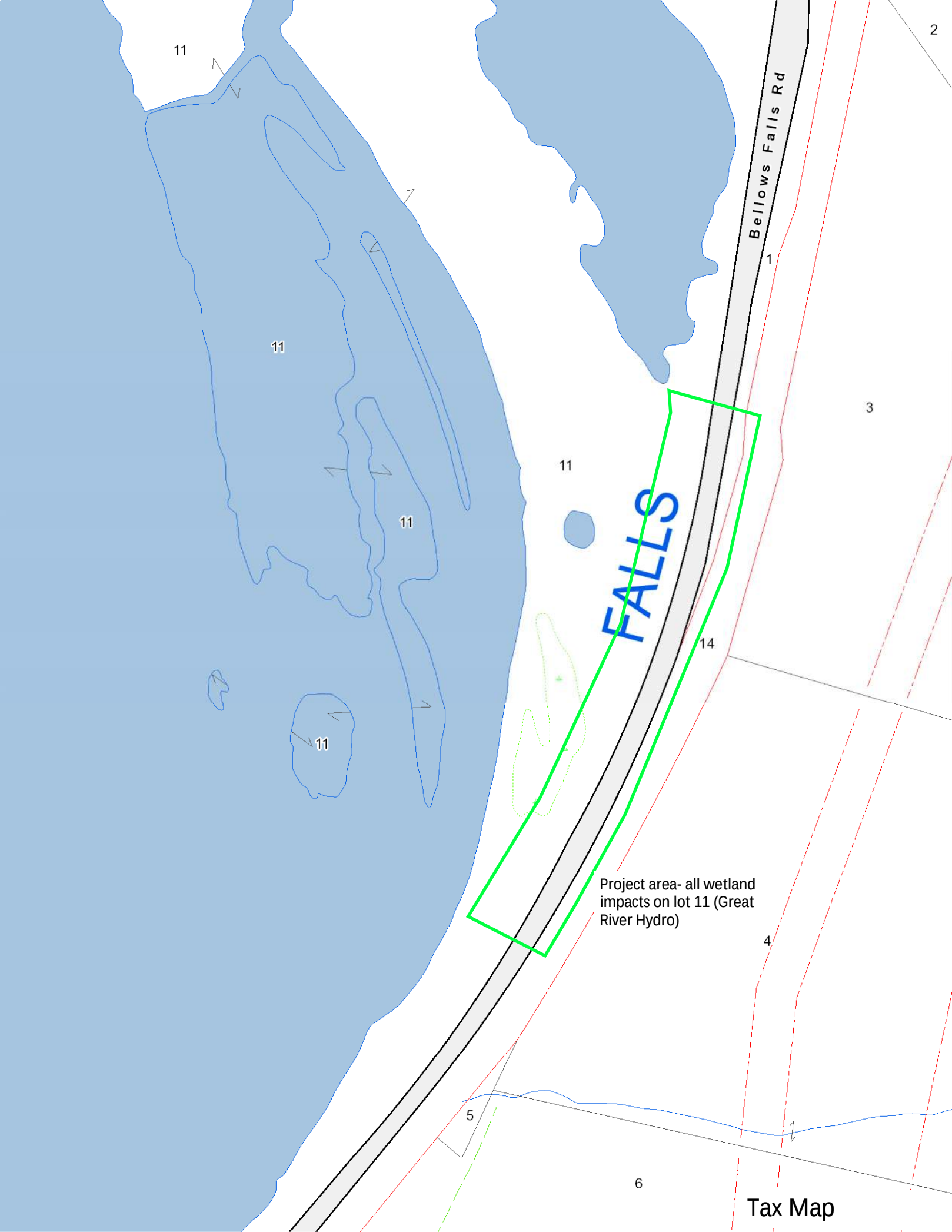
20 0 20 40

SCALE IN FEET

STATE OF NEW HAMPSHIRE
CHARLESTOWN
DEPARTMENT OF TRANSPORTATION ∘ BUREAU OF HIGHWAY DESIGN

EROSION CONTROL PLANS
3 OF 3

DGN	STATE PROJECT NO.	SHEET NO.	TOTAL SHEETS
43565Eros_Cont	43565	11	11


Bellows Falls Rd
FALLS
11
11
11
11
11
1
2
3
4
5
6
14
Project area- all wetland impacts on lot 11 (Great River Hydro)

Tax Map

227 LOWER LANDING RD

Location	227 LOWER LANDING RD	**Mblu**	244/ 11/ 0/ 0/
Acct#	3327	**Owner**	GREAT RIVER HYDRO LLC
Assessment	$130,600	**Appraisal**	$130,600
PID	100319	**Building Count**	1

Current Value

Appraisal			
Valuation Year	**Improvements**	**Land**	**Total**
2011	$0	$130,600	$130,600
Assessment			
Valuation Year	**Improvements**	**Land**	**Total**
2011	$0	$130,600	$130,600

Owner of Record

Owner	GREAT RIVER HYDRO LLC	**Sale Price**	$0
Co-Owner	ATTN: PROPERTY TAX DEPARTMENT	**Certificate**	
Address	112 TURNPIKE ROAD SUITE 202 WESTBOROUGH, MA 01581	**Book & Page**	04/19/2017
		Sale Date	04/19/2017

Ownership History

Ownership History				
Owner	**Sale Price**	**Certificate**	**Book & Page**	**Sale Date**
GREAT RIVER HYDRO LLC	$0		04/19/2017	04/19/2017
TRANS CANADA HYDRO NE	$0		1507/ 306	11/04/2005

Building Information

Building 1 : Section 1

Year Built:	
Living Area:	0
Replacement Cost:	$0
Building Percent Good:	
Replacement Cost Less Depreciation:	$0

Building Attributes	
Field	**Description**
Style	Vacant Land
Model	
Grade:	
Stories:	
Occupancy	
Exterior Wall 1	
Exterior Wall 2	
Roof Structure:	
Roof Cover	
Interior Wall 1	
Interior Wall 2	
Interior Flr 1	
Interior Flr 2	
Heat Fuel	
Heat Type:	
AC Type:	
Total Bedrooms:	
Total Bthrms:	
Total Half Baths:	
Total Xtra Fixtrs:	
Total Rooms:	
Bath Style:	
Kitchen Style:	
MHP	

Building Photo

(http://images.vgsi.com/photos/CharlestownNHPhotos//default.jpg)

Building Layout

(http://images.vgsi.com/photos/CharlestownNHPhotos//Sketches/100319_3

Building Sub-Areas (sq ft)	Legend
No Data for Building Sub-Areas	

Extra Features

Extra Features	Legend
No Data for Extra Features	

Land

Land Use

Use Code	4220
Description	ELEC PLANT
Zone	
Neighborhood	
Alt Land Appr	No
Category	

Land Line Valuation

Size (Sqr Feet)	12153240
Frontage	
Depth	
Assessed Value	$130,600
Appraised Value	$130,600

Outbuildings

Outbuildings	Legend
No Data for Outbuildings	

Valuation History

Appraisal			
Valuation Year	**Improvements**	**Land**	**Total**
2019	$0	$130,600	$130,600
2018	$0	$130,600	$130,600
2017	$0	$130,600	$130,600

Assessment			
Valuation Year	**Improvements**	**Land**	**Total**
2019	$0	$130,600	$130,600
2018	$0	$130,600	$130,600
2017	$0	$130,600	$130,600

(revised 5/14/02)

STATE OF NEW HAMPSHIRE

DEPARTMENT OF TRANSPORTATION

AGREEMENT FOR ENTRY AND CONSTRUCTION

THIS AGREEMENT entered into this day between Great River Hydro, LLC and the State of New Hampshire Department of Transportation, 7 Hazen Drive, PO Box 483, Concord, NH 03302-0483.

WITNESSETH: THAT, for consideration, Great River Hydro, LLC does hereby release to the State of New Hampshire, Department of Transportation, the right to enter upon the property of Great River Hydro, LLC, lying Westerly of NH Route 12, in the Town of Charlestown and shown on a Plan of Charlestown, 43565 on file in the Records of the New Hampshire Department of Transportation:

SAID AGREEMENT is for the purpose of constructing slopes and installing drainage, as shown on said plan, prior to negotiation and acquisition of slope and drainage easements, by the State.

It is hereby made a condition of this instrument that Great River Hydro, LLC will, upon transfer of title, inform any new owner of this property of the conditions agreed upon.

AND IT IS FURTHER AGREED upon between Great River Hydro, LLC and the State of New Hampshire, Department of Transportation that the terms of this instrument shall in no way affect the amount of compensation to be awarded to Great River Hydro, LLC, nor shall they be in any way construed as limiting or restricting the right of Great River Hydro, LLC to refuse the award of damage which is to be made.

EXECUTED This 24th day of August, 2021, A.D.

STATE OF NEW HAMPSHIRE
DEPARTMENT OF TRANSPORTATION

John J Chmura / Road Agent Supervisor
NAME/TITLE

GREAT RIVER HYDRO, LLC

By: E A O'Dea
Name: Erin A. O'Dea
Title: Vice President - Legal

CHARLESTOWN CONSERVATION COMMISSION
P.O. BOX 385
CHARLESTOWN, NH 03603
Tel: (603) 826-4400
Fax: (603) 826-3708
Planning@Charlestown-nh.gov
www.charlestown-nh.gov

August 25, 2021

To Whom it may Concern,

The Charlestown Conservation Commission waives any right to intervene on the wetland permit for project #43565 to reopen Route 12. This is an essential route and must be completed as soon as possible and done in a manner that will preclude any issues in the future.

The Charlestown Conservation Commission is supportive of the NHDOT project to reopen NH Route 12.

Sincerely,

Jim Fowler – Charlestown Conservation Commission Chair

Martin, Rebecca

From: Pat Crocker <pcrocker@uvlsrpc.org>
Sent: Saturday, August 28, 2021 12:07 PM
To: Ted Cooley (tedc@cooley-company.com); Jason Rasmussen; Jennifer Griffin; Steven Lembke (slembkevt@gmail.com)
Cc: OSullivan, Andrew; Martin, Rebecca
Subject: FW: Emergency Project NHDOT Charlestown 43565

Hi All,

Please read this message from the bottom up. The DOT needs assistance to get an emergency project going. They need a waiver from the Mt. Ascutney LRS review in order to proceed. I've communicated with the LRS members several times to no avail. CRJC is the authority overall and I believe it is within your authority to waiver the review as requested. The DOT staff are copied on the message and you can respond them directly.

Thanks.
Pat

From: OSullivan, Andrew <Andrew.M.OSullivan@dot.nh.gov>
Sent: Friday, August 27, 2021 1:37 PM
To: Pat Crocker <pcrocker@uvlsrpc.org>
Cc: Martin, Rebecca <Rebecca.A.Martin@dot.nh.gov>
Subject: RE: Emergency Project NHDOT Charlestown 43565

Hi Pat,

We haven't got a response as of yet, can you pass it on to the Chair and Vice Chair of the Commission to approve a waiver? I will be sending a copy of the completed application on Monday August 30th via certified mail to the Connecticut River Mt. Ascutney LAC.

Thank you for the coordination.

Andrew O'Sullivan
Wetlands Program Manager
New Hampshire Department of Transportation
Bureau of Environment
7 Hazen Drive, PO Box 483
Concord NH, 03301-0483
603-271-0556

From: Pat Crocker <pcrocker@uvlsrpc.org>
Sent: Thursday, August 26, 2021 12:51 PM
To: OSullivan, Andrew <Andrew.M.OSullivan@dot.nh.gov>
Cc: Martin, Rebecca <Rebecca.A.Martin@dot.nh.gov>
Subject: RE: Emergency Project NHDOT Charlestown 43565

EXTERNAL: Do not open attachments or click on links unless you recognize and trust the sender.

Can we give it a day? If you don't hear from David Taylor or someone else by mid-day tomorrow, I'll pass it on to the Chair and Vice Chair of the Commission to approve a waiver.

Pat

Patricia Crocker

UVLSRPC employees are working remotely and the office is closed to visitors. Please call or email and we will respond as soon as possible. Thank you.

From: OSullivan, Andrew <Andrew.M.OSullivan@dot.nh.gov>
Sent: Thursday, August 26, 2021 12:20 PM
To: Pat Crocker <pcrocker@uvlsrpc.org>
Cc: Martin, Rebecca <Rebecca.A.Martin@dot.nh.gov>
Subject: RE: Emergency Project NHDOT Charlestown 43565

Hi Pat,

Thank you for getting back to me and following up. I haven't heard from anyone other than you. Hoping to coordinate with someone on the LAC as soon as possible. We are finalizing the application with the hopes of getting it to NHDES 08/30/2021. NHDES will want to know if we have concurrence with the LAC to waive it's right to intervene so the permit application can be expedited in accordance with Env-C 209.07 Requests to Expedite Review of an Application.

Rebecca or I are available to discuss to facilitate the application review and anticipated expedited time frames.

Thank you,

Andrew O'Sullivan
Wetlands Program Manager
New Hampshire Department of Transportation
Bureau of Environment
7 Hazen Drive, PO Box 483
Concord NH, 03301-0483
603-271-0556

From: Pat Crocker <pcrocker@uvlsrpc.org>
Sent: Thursday, August 26, 2021 12:11 PM
To: OSullivan, Andrew <Andrew.M.OSullivan@dot.nh.gov>
Subject: RE: Emergency Project NHDOT Charlestown 43565

EXTERNAL: Do not open attachments or click on links unless you recognize and trust the sender.

Hi Andrew,

Please let me know whether someone contacted you so you can keep this project moving.

Thanks.

Pat

Patricia Crocker

UVLSRPC employees are working remotely and the office is closed to visitors. Please call or email and we will respond as soon as possible. Thank you.

From: OSullivan, Andrew <Andrew.M.OSullivan@dot.nh.gov>
Sent: Wednesday, August 25, 2021 2:58 PM
To: Meghan Butts <mbutts@uvlsrpc.org>; Olivia Uyizeye <ouyizeye@uvlsrpc.org>; Pat Crocker <pcrocker@uvlsrpc.org>
Cc: dstaylor342@gmail.com; Martin, Rebecca <Rebecca.A.Martin@dot.nh.gov>
Subject: Emergency Project NHDOT Charlestown 43565
Importance: High

NHDOT is planning to request an expedited wetland permit application in accordance with Env-C 209.07 Requests to Expedite Review of an Application.

I am writing to ask if you could direct me to the appropriate Connecticut River Mt. Ascutney LAC POC that might be able to waive the LAC's right to intervene in the permitting process?

The Town is understandably anxious for the need to have the road reopened before winter and NHDOT is planning to have an accelerated bidding period in hopes of starting work as early as this September, but we will need the wetland permit to complete the work.

I am available to discuss on the phone or provide any additional details that might assist with the LAC's review.

The project is scheduled to be discussed today at the Charlestown Selectboard meeting.

Please contact me at your earliest opportunity.

Thank you,

Andrew O'Sullivan
Wetlands Program Manager
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